DOCUMENT RESUME

ED 022 342 EF 001 813

NATIONAL ASSOCIATION OF PHYSICAL PLANT ADMINISTRATORS STANDARDS COMMITTEE REPORT, 1966.

National Association of Physical Plant Administrators of Universities and Colleges, Richmond, Ind.
Pub Date 66
Note-78p.
EDRS Price MF-$0.50 HC-$3.20
Descriptors-DATA ANALYSIS, *EDUCATIONAL FINANCE, EMPLOYEES, *EXPENDITURES, GUIDELINES, *HIGHER EDUCATION, *OPERATIONS RESEARCH, SCHOOL MAINTENANCE, SYSTEMS ANALYSIS, *UNIT COSTS

The 1966 report of the National Standards Committee summarizes the results of the 1965 questionnaire from 89 institutions of higher education which are listed by name. Tabulations and graphs of data are given in the areas of the cost of administration of the plant operation, janitorial services, utilities, grounds, labor, traffic and security. Rationale for the establishment and application of the derived standards is discussed. (HH)

1966
STANDARDS COMMITTEE REPORT

NATIONAL ASSOCIATION
of
PHYSICAL PLANT ADMINISTRATORS,

EF 001815
ED022742

1966
STANDARDS COMMITTEE REPORT

NATIONAL ASSOCIATION
of
PHYSICAL PLANT ADMINISTRATORS,

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

EF 001813

COMMENTS
of
NATIONAL STANDARDS COMMITTEE

Ted B. Simons
Michigan State University

Raymond Halbert
University of Missouri

Richard A. Kendricks
Colorado College

R. F. Gingrich, Chairman
Kansas State University

The Committee is disappointed by the few replies to the Standards Committee questionnaire sent out in June 1965. We received 101 returns of which 89 were usable. The most disappointing factor was the small number of returns from the larger institutions. We feel that the trend line might have had a slightly different slope if we had more data in this area. The 89 usable returns breakdown is as follows:

STUDENT ENROLLMENT-F.T.E.	Number of Returns	% of Total Returns
0 - 2499	24	27
2500 - 4999	16	18
5000 - 7499	13	15
7500 - 9999	10	11
10000 - 14999	17	19
15000 - up	9	10
	89	100

From the answers to the questionnaire and the letters received it may be that if the data were requested in other terms, more schools would have been able to answer. For example; we have used the term Full Time Equivalent Students under the mistaken impression that this was a universally adopted measure of student population. We find, as stated, we were mistaken and perhaps total head count, total class hours, or total credit hours might be more acceptable and one of these figures could be used instead to include the use factor in the same way that the Full Time Equivalent Student figure was used.

The Committee wants to call attention to the fact that they have in no way established a STANDARD for the report SUB-DIVISIONS and have not arrived at a STANDARD BUDGET ALLOWANCE for these divisions. We have taken the data given us and plotted, by using square feet serviced and Full Time Equivalent Students (a use factor) and money spent for each service, what we like to call a trend line or a straight line graph on log-log paper.

In securing our data no attempt was made to get a measurement on the quality of service in each category because we do not know any criteria or method that could be used to measure this quality.

The Committee suggests that the name Standards Committee be changed to TREND or COST EXPERIENCE Committee to avoid the use of the word Standards and what it implies. We do not mean by suggesting this that the data and graphs are of no value for comparison's sake and if desired can be used by an institution of any given size to determine what is being expended budget-wise by the schools answering the questionnaire. If it is used, each school must analyze its own special conditions and requirements and make its own adjustments in the light of this knowledge.

The division on Alterations and Improvements was not used because the data received was not what the committee expected. The outline and definition does not sufficiently delineate the requirements.

CLASSIFICATIONS AND DEFINITIONS
of
ACCOUNTS

STANDARDS COMMITTEE
NATIONAL ASSOCIATION OF PHYSICAL PLANT ADMINISTRATORS
1965

Classification divisions accepted by the Association at the 1965 meeting in Raleigh, North Carolina.

I. CLASSIFICATION OF MAJOR ACCOUNTS

1. ADMINISTRATIVE
2. BUILDING MAINTENANCE
3. JANITORIAL SERVICE
4. TRAFFIC, SECURITY, AND SAFETY
5. UTILITIES
6. GROUNDS
7. ALTERATIONS AND IMPROVEMENTS

II. OUTLINE OF EXPENDITURES TO BE INCLUDED UNDER EACH MAJOR ACCOUNT

1. ADMINISTRATIVE

Includes all costs related to general administration of plant maintenance and operation. Do not include in the classification, or elsewhere in this report, costs related to design or administering of new construction projects.

a) Administrator
b) Assistant Administrator
c) Engineer, Architects, Draftsmen, and Estimators
d) Office personnel including account keeping done by the Physical Plant Department such as payroll, billing, material ordering, etc.
e) Dispatching of work orders
f) Other operating costs, including supplies, materials, and equipment

2. BUILDING MAINTENANCE

Includes all costs related to routine repair of buildings, structures, and utility distribution systems, including normally recurring repairs and preventive maintenance. Do not include costs for alterations and improvements, major remodeling, new construction, major renovation, and the maintenance costs in areas for which reimbursement is received.

a) Interior and exterior of buildings
    1) Plumbing, heating, air conditioning, and ventilation
    2) Electrical, all types
    3) Carpentry and cabinet making
    4) Painting and glass
    5) Hardware, locks, keys and records, closers, and other hardware
    6) Roofing and tin work including downspouts and gutters
    7) Welding and necessary machine work
    8) Elevators and other building machinery

b) Classroom and laboratory furniture not inventoried to a department.

c) Maintenance of utility distribution systems. Electrical, heating, process steam, water lines, gas lines, and sewer lines (both storm and sanitary).

3. JANITORIAL SERVICES

Includes all costs related to janitorial and custodial services to buildings and structures.

a) Supervision and operation of janitorial services - cleaning of buildings, washing of windows, care and waxing of floors, etc.
b) Routine maintenance of swimming pools, vacuum cleaning, chlorination of pools, back washing of filters, etc.
c) Small set ups only where materials for the special set ups are stored or kept within the same building.
d) Snow removal on building steps +30' of sidewalk in each direction.
e) Other operating costs such as paper, paper towels and tissue, wax, erasers, chalk, cleaners, equipment used in these operations and maintenance of this equipment, and other materials and supplies.

4. TRAFFIC, SECURITY, AND SAFETY

Includes all costs for watchmen, police, safety personnel, and services related to plant and campus security and safety.

a) Campus police. Patrol of campus and school areas including exterior of buildings.
   1) Patrol car, radio communications costs, uniforms, and police equipment including radar.
   2) Office operation. Registration of cars, collection of fees, and fines including accounting records.
b) Watchmen. Building interiors on a route system.
   1) Uniforms and clocks.
c) Other operating costs such as car identification stickers, office supplies, and equipment.
d) Safety program. Inspection and recommendations.

5. UTILITIES

Includes all costs for energy for heat, light and power, gas, ventilation, air conditioning, and any other utilities necessary for the operation of the Physical Plant. Include all costs of labor and material.

a) Operation and maintenance of heating and power plant equipment including water plant and sewage disposal system.
b) Central air condition plant. Operation and maintenance of equipment and distribution systems.
c) Other operating costs such as electricity, fuel, water, sewage charges, and miscellaneous supplies.

6. GROUNDS

Includes all costs for operation and maintenance of campus grounds. You are asked to report this total cost as a relationship to your total outside gross area of the physical plant buildings. It is recognized that there will be a slight variation in this figure because of the difference due to size and type of campus, urban University vs. rural. Exclude areas not intensively maintained by the Physical Plant budget or other areas for which the Physical Plant is reimbursed.

a) All areas of the main campus maintained. Growing things such as trees, grass, shrubs, flowers, nursery stock, etc.
b) Maintenance of roads and walks, parking areas.
c) Snow removal.
d) Not to include maintenance of golf course, athletic practice fields, and stadium varsity fields.
e) Physical Education and intra-mural and R.O.T.C. drill field.
f) Trash hauling and refuse disposal.
g) Other operating costs such as seeds, plant materials, and equipment.

7. ALTERATIONS AND IMPROVEMENTS

Includes all costs for major non-recurring repairs, building remodeling or alterations, major deferred maintenance items, and construction of new buildings and structures. Note: Exclude this classification in reporting on maintenance and operating costs.

a) Minor alterations and improvements which are for non-recurring items.
b) Capital improvements, line item special allotments, and essentially large improvement items.

REPORT
of
N.A.P.P.A. STANDARDS COMMITTEE
1966

1. Contents of Report

   a) Each reporting school is assigned a number which is used throughout the report. Section A, page 1, salmon color.

   b) Tabulation of areas serviced, cost per year, and Full Time Equivalent Students times square feet and cost per F.T.E.S., S.F. for (Section B and C, green color)

	Page
Administration	2 through 5
Building Maintenance	6 through 9
Janitorial Services	10 through 13
Traffic, Security, and Safety	14 through 17
Utilities	18 through 21
Grounds	22 through 25

   c) Graphs of Full Time Equivalent Students times square feet serviced against cost divided by FTESSF. There is a graph of each of the six services listed above. The line shown on this graph is laid out by statistical methods using all points reported. We felt that some of the reports unduly influenced the slope of this line so we have had an overlayment made not using statistical methods and disregarding the most divergent reports, then drew this overlay line, by eye.

Comments on these lines of experience are:

1. The first thing to remember is that these are not standards lines, in that these lines are developed from the data reported, which is the experience cost of the 89 schools reporting usable data. There are states and areas which have developed formula which makes allowances for budgeting for services. In the cases known, the allowance is considerably more than these experience lines would indicate.

2. There are many special conditions which may effect the schools and show divergence from this experience line. Some of these factors probably are:

   a) Area wage rates
   b) Special types of instruction
   c) Standards of service performed within the category. Some institutions may have a much higher acceptable standard than others

3. If the institution point on the graph was on the upper side of the experience line it is much better than if the institution point was below the line. Of course, here again, special conditions effect the cost.

4. These lines can be used by any institution by simply determining the number represented by multiplying the Full Time Equivalent Students

by the gross square feet of area serviced and spotting the point on the vertical graduated coordinate axis; then move horizontally until you intersect the experience line; then vertically downward to the horizontal axis; and read the cost per square foot as determined by the experience of the 89 reporting schools.

d) The labor rate data was rather meager. We had maps crosshatched to indicate the wage areas (high, intermediate, and low). This was done in the hope that a formula could be developed from these rates which could be applied to level off the points and bring them into closer proximity. So far as could be determined, the wage rates have little or nothing to do with the experience cost line. However, we believe further study is indicated. The crosshatched maps are attached under this division. Section D, page 26 through 37, pink color.

e) To further compare; two additional charts were prepared.

1. The square feet serviced against the cost per square foot. An area was chosen in which about 1/2 to 2/3 of the schools were grouped to see who would be in the fringe areas. The fringe area institutions, both high and low, are listed. Section E1, page 38 through 50, blue color.

2. Budgets were listed for each service and the percentage of the total budget was figured and plotted. The percentage for each service was plotted against the total Physical Plant budget. The arithmatic average was figured of the percentage of total budget and an average line on the graph was drawn so each school could see how far they were above or below this average line. Section E2, page 51 through 68, canary color.

These graphs were plotted in an effort to find some other means for a basis of comparison.

N.A.P.P.A. STANDARDS COMMITTEE
QUESTIONNAIRE
1965

PLEASE READ CAREFULLY the statement at the beginning of each classification in Part II before answering the following:

I. BUILDING AND COST DATA

Subdivision	Gross sq. ft. Area serviced	Actual expenditures 1963-64 fiscal year
1. Administrative	____________	$____________
2. Building Maintenance	____________	$____________
3. Janitorial services	____________	$____________
4. Traffic, Security, & Safety	____________	$____________
5. Utilities	____________	$____________
6. Grounds	____________	$____________
7. Alterations & Improvements	____________	$____________
8. Area of academic campus	____________ acres	

II. ENROLLMENT DATA

a) Total head count on campus ____________

b) Student credit hours as recorded with Registrar ____________

Graduate hours ____________

Undergraduate hours ____________

c) Full time equivalent students ____________

(This figure to be determined by dividing the number of graduate credit hours by 9 and the undergraduate hours by 15)

III. TYPE OF UNIVERSITY (check)

1. State supported ______
2. Land Grant ______
3. Private ______
4. Municipal ______
5. Church supported ______

IV. PAY RANGES (minimum and maximum)

a) Carpenter ________ ________

b) Painter ________ ________

c) Janitor ________ ________

d) Plumber ________ ________

e) Laborer ________ ________

V. Do you object to being identified on charts? Yes ______ No ______

(No institution will be identified if they object)

Signed ______________________________ School ______________________________

NUMBER INDEX
of
REPORTING SCHOOLS

NO.	NAME
1	Southwest Medical School
2	Grand Valley State College
3	A
4	Nebraska College of Medicine
5	University of California, San Diego
6	B
7	Iowa Wesleyan College
8	William Jewell
9	Goucher College
10	College of Southern Utah
11	C
12	Colorado College
13	D
14	E
15	F
16	George Peabody College
17	Evansville College
18	Depauw University
19	G
20	Wake Forest College
21	University of Windsor
22	Washburn University
23	Pan American College
24	H
25	I
26	J
27	Princeton University
28	Texas Southern University
29	University of Southern Florida
30	K
31	Southeast Missouri State
32	Wittenberg University
33	University of Mississippi
34	University of Louisville
35	University of California, Davis
36	Wichita State University
37	University of Montana
38	Omaha University
39	University of Idaho
40	Adelphi University
41	Southern Methodist
42	University of Maine
43	Fresno State College
44	Tulane University
45	L
46	M
47	N
48	University of Arkansas
49	North Carolina State
50	Texas A & M University
51	University of Massachusetts
52	San Fernando Valley State
53	University of New Mexico
54	Memphis State University
55	Ball State University
56	Washington State University
57	University of Alberto
58	O
59	Stanford University
60	P
61	Colorado State
62	Queens College
63	University of Southern California
64	University of Tennessee
65	University of Houston
66	Arizona State University
67	Texas Technology
68	Q
69	University of Iowa
70	Harvard University
71	R
72	University of Utah
73	University of British Columbia
74	University of Cincinnati
75	S
76	Wayne State University
77	Missouri University
78	Indiana University
79	University of California, Los Angeles
80	T
81	U
82	V
83	West Virginia Wesleyan
84	Swarthmore College
85	Kansas State University
86	W
87	University of Delaware
88	Mills College
89	X

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

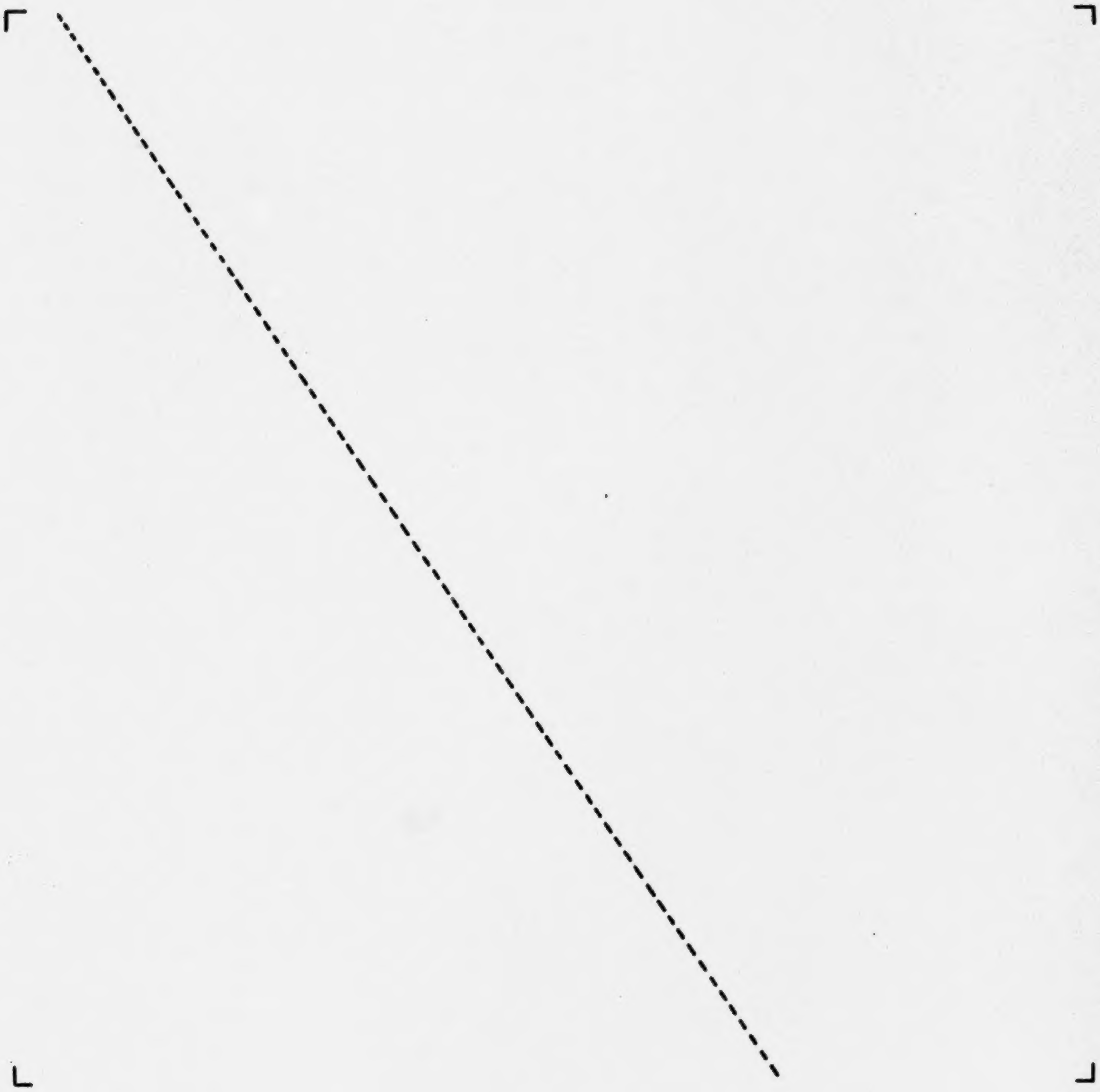
ADMINISTRATION

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	26,868	128,960,000	.00020834
2	424				
3	505	425,597	34,300	219,926,485	.00015959
4	510	523,909	14,785	267,193,590	.00005533
5	565	624,821	44,637	353,023,865	.00012644
6	672	314,756	19,000	211,516,032	.00008983
7	700	350,200	9,408	245,140,000	.00003838
8	939	275,967	16,800	259,133,013	.00006483
9	1000	462,240	44,950	462,240,000	.00009724
10	1018	349,080	4,363	355,363,440	.00001228
11	1375	1,233,000	116,000	1,695,375,000	.00006842
12	1433	675,000	45,180	967,275,000	.00004671
13	1453	773,931	15,000	1,124,521,743	.00001334
14	1513	313,059	15,262	473,658,167	.00003222
15	1600	356,253	28,082	570,004,800	.00004927
16	1726	508,600	19,720	877,843,600	.00002246
17	2177	556,759	10,119	1,212,064,343	.00000835
18	2362	800,000	31,366	1,889,600,000	.00001660
19	2387	537,700	19,137	1,283,489,900	.00001491
20	2421	1,302,800	38,515	3,154,078,800	.00001221
21	2749	513,271	27,831	1,410,981,979	.00001972
22	2843	506,499	19,144	1,439,976,657	.00001329
23	3211	211,997	31,719	680,722,367	.00004660
24	3299	707,964	50,422	2,335,573,236	.00002159
25	3400	2,441,485	101,420	8,301,049,000	.00001222
26	3499	472,850	70,000	1,654,502,150	.00004231
27	3530	3,432,000	295,000	12,114,960,000	.00002435
28	3568	779,454	49,543	2,781,091,872	.00001781
29	3761	837,996	52,400	3,151,702,956	.00001663
30	3844	227,605	18,064	874,913,620	.00002065
31	3925	746,893	20,731	2,931,555,025	.00000707
32	4350	422,598	41,883	1,838,301,300	.00002278
33	4568	2,201,152	29,722	10,054,862,336	.00000296
34	4609	1,140,045	32,426	5,254,467,405	.00000617
35	4691	3,202,344	126,759	15,022,195,704	.00000844
36	4817	729,600	31,033	3,514,483,200	.00000883
37	5047	866,466	61,094	4,373,053,902	.00001397
38	5165	508,294	27,485	2,625,338,510	.00001047
39	5176	1,464,855	85,000	7,582,089,480	.00001121
40	5180	305,420	47,500	1,582,075,600	.00003002
41	5352	1,501,614	72,040	8,036,638,128	.00000896

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

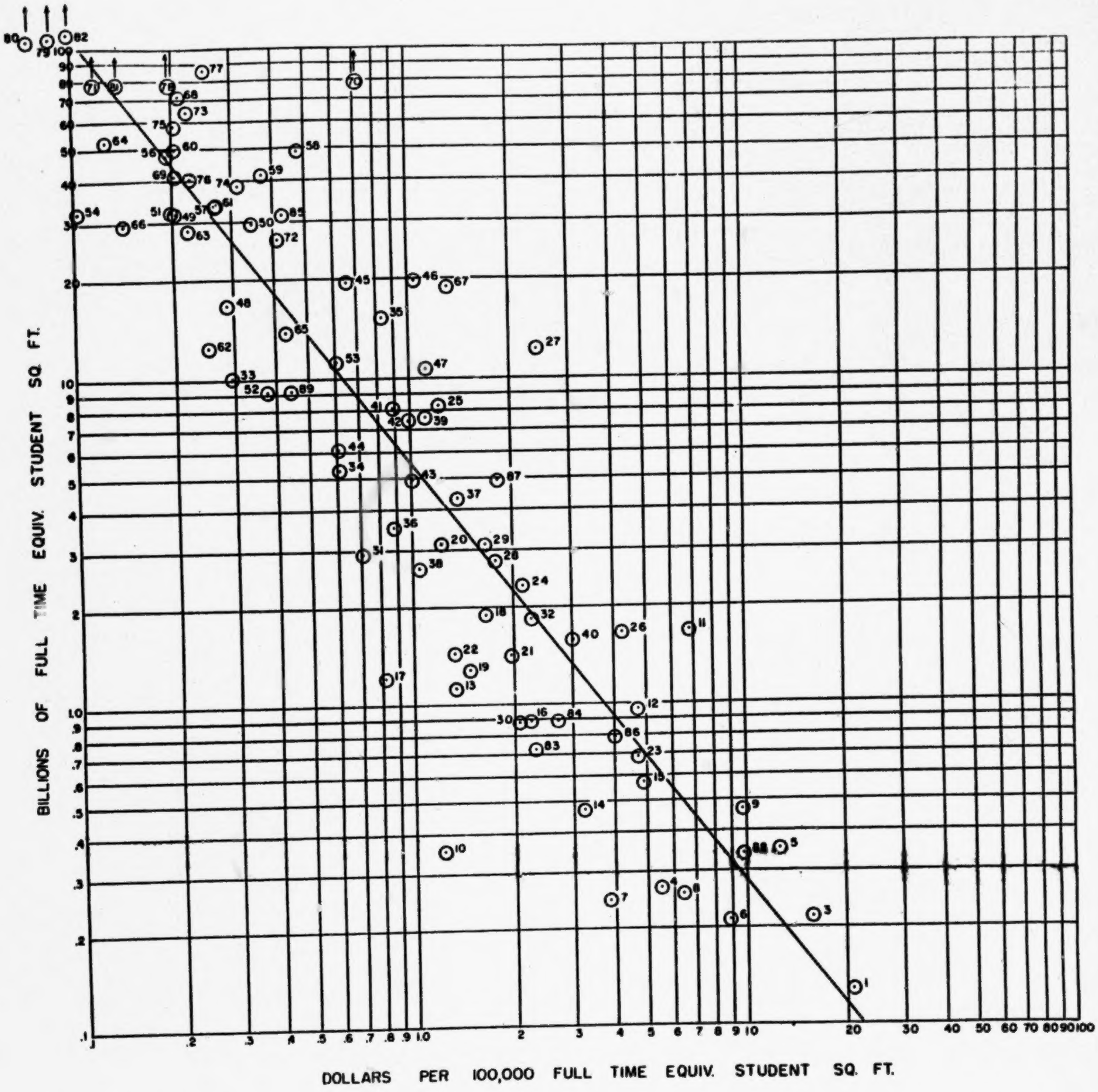
ADMINISTRATION

NO.	F.T.E.	SQ.FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	73,700	7,439,295,625	.00000991
43	6018	816,111	50,183	4,911,355,998	.00001022
44	6367	973,678	38,315	6,199,407,826	.00000618
45	6400	3,043,947	128,428	19,481,260,800	.00000659
46	6416	3,075,000	208,000	19,729,200,000	.00001054
47	6667	1,600,000	120,900	10,667,200,000	.00001133
48	7693	2,208,900	49,078	16,993,067,700	.00000289
49	8275	3,742,048	63,094	30,965,447,200	.00000204
50	8353	3,520,286	100,660	29,404,948,958	.00000342
51	8357	3,842,040	63,585	32,107,928,280	.00000198
52	8609	1,058,487	34,176	9,112,514,583	.00000375
53	8950	1,243,000	67,891	11,124,850,000	.00000610
54	9232	3,484,800	32,760	32,171,673,600	.00000102
55	9360				
56	9395	5,049,378	91,174	47,438,906,310	.00000192
57	10372	3,161,499	87,542	32,791,067,628	.00000267
58	10388	4,711,312	229,451	48,941,109,056	.00000469
59	10500	3,900,000	153,700	40,950,000,000	.00000375
60	10770	4,633,611	103,392	49,903,990,470	.00000207
61	10878	3,017,807	88,710	32,827,704,546	.00000270
62	11455	1,089,788	31,215	12,483,521,540	.00000250
63	12451	2,264,336	62,745	28,193,247,536	.00000222
64	12546	4,170,860	65,967	52,327,609,560	.00000126
65	12620	1,103,340	60,710	13,924,150,800	.00000436
66	12643	2,335,420	41,861	29,526,715,060	.00000142
67	13020	1,453,498	252,815	18,924,543,960	.00001336
68	13321	5,444,000	154,028	72,519,524,000	.00000212
69	13474	3,062,100	83,480	41,258,735,400	.00000202
70	13902	8,378,059	849,000	116,471,776,218	.00000729
71	14111	9,500,000	156,500	134,054,500,000	.00000117
72	14498	1,826,182	107,711	26,475,986,636	.00000407
73	14714	4,350,191	141,361	64,008,710,374	.00000221
74	15006	2,572,720	123,195	38,606,236,320	.00000319
75	15113	3,854,238	118,444	58,249,098,894	.00000203
76	15644	2,572,421	100,288	40,242,954,124	.00000249
77	16460	5,175,885	212,833	85,195,067,100	.00000250
78	19296	7,387,690	277,423	142,552,866,240	.00000195
79	20827	8,466,165	152,396	176,324,818,455	.00000086
80	24932	4,855,622	57,401	121,060,367,704	.00000047
81	25568	5,443,616	192,670	139,182,373,888	.00000138
82	27847	5,767,433	158,593	160,605,706,751	.00000099
83	1363	536,822	16,914	731,688,386	.00002312
84	993	904,820	24,406	898,486,260	.00002716
85	9033	3,408,265	129,879	30,786,857,745	.00000422
86	1615	490,847	31,731	792,717,905	.00004003
87	5139	955,941	90,033	4,912,580,799	.00001833
88	714	477,181	33,500	340,707,234	.00009833
89	5257	1,785,608	41,370	9,386,941,256	.00000441



ADMINISTRATION

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



ADMINISTRATION

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

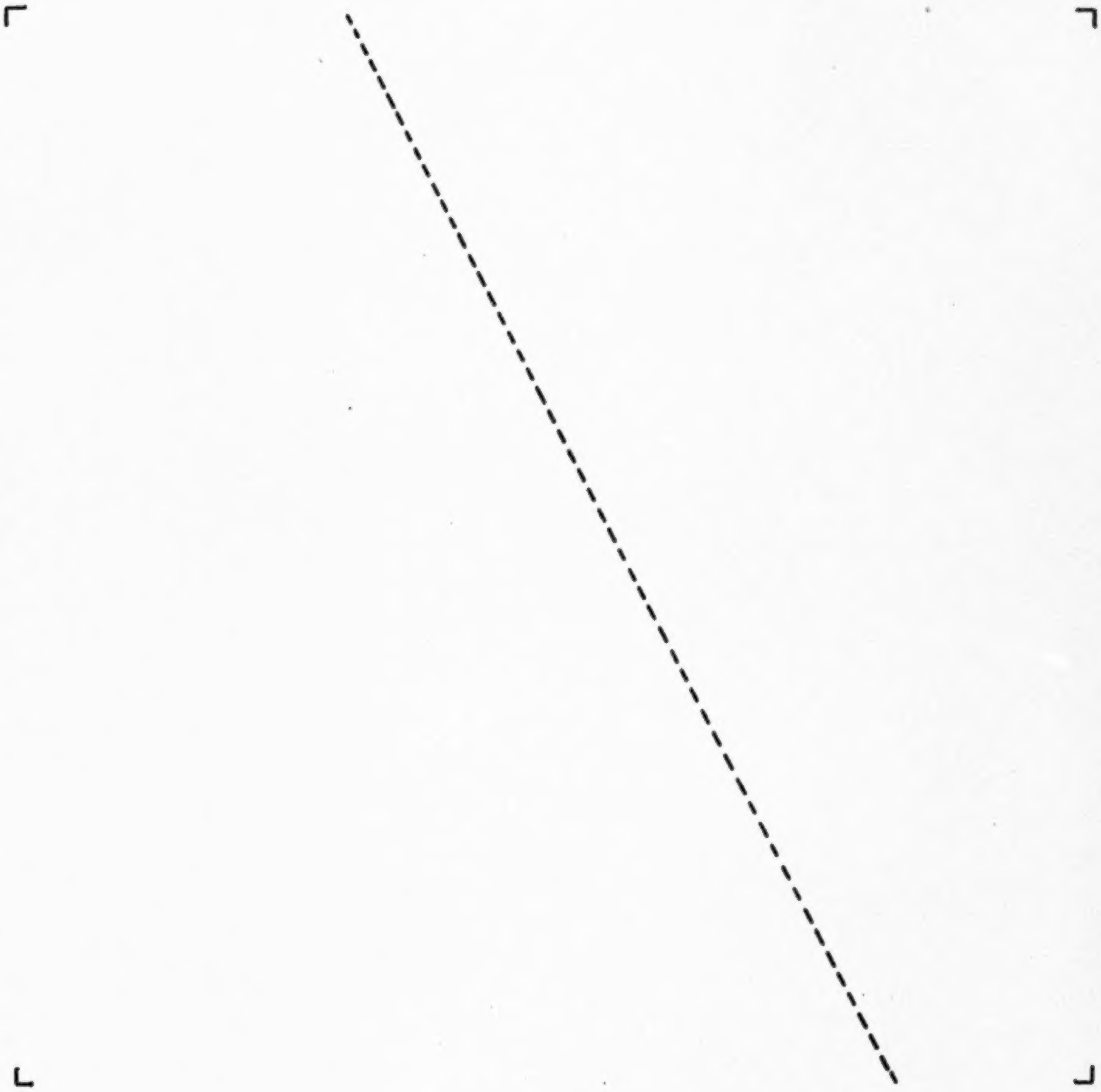
BUILDING MAINTENANCE

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	75,856	128,960,000	.00058821
2	424	103,000	22,000	43,672,000	.00050375
3	505	425,597	209,184	214,926,485	.00097328
4	510	523,909	111,074	267,193,590	.00041571
5	565	624,821	126,476	353,023,865	.00035827
6	672	314,756	8,000	211,516,032	.00003782
7	700	247,850	33,109	173,495,000	.00019084
8	939	263,887	41,389	247,789,893	.00016703
9	1000	462,240	115,900	462,240,000	.00025074
10	1018	220,980	21,006	224,957,640	.00009338
11	1375	1,233,000	450,000	1,695,375,000	.00026543
12	1433	304,327	52,750	436,100,591	.00012055
13	1453	773,931	244,586	1,124,521,743	.00021750
14	1513	313,059	80,140	473,658,167	.00016881
15	1600	356,253	89,713	570,004,800	.00015739
16	1726	508,600	140,098	877,843,600	.00015959
17	2177	375,064	41,389	816,514,328	.00005069
18	2362	450,000	117,000	1,062,900,000	.00011008
19	2387	537,700	87,239	1,283,489,900	.00006797
20	2421	1,302,800	200,204	3,154,078,800	.00006348
21	2749	513,271	110,700	1,410,981,979	.00007846
22	2843	336,845	42,079	957,650,335	.00004394
23	3211	189,323	36,452	607,916,153	.00005996
24	3299	707,964	100,000	2,335,573,236	.00004282
25	3400	2,441,485	802,417	8,301,049,000	.00009667
26	3499	465,350	360,891	1,628,259,650	.00022164
27	3530	3,432,000	560,000	12,114,960,000	.00004622
28	3568	562,527	97,244	2,007,096,336	.00004845
29	3761	576,561	149,000	2,168,445,921	.00006871
30	3844	227,605	91,592	874,913,620	.00010469
31	3925	746,893	68,655	2,931,555,025	.00002342
32	4350	422,598	93,952	1,838,301,300	.00005111
33	4568	825,618	138,703	3,771,423,024	.00003677
34	4609	1,140,045	205,990	5,254,467,405	.00003920
35	4691	2,253,314	520,137	10,570,295,974	.00004921
36	4817	873,640	52,335	4,208,323,880	.00001244
37	5047	866,466	352,442	4,373,053,902	.00008059
38	5165	508,294	41,196	2,625,338,510	.00001569
39	5176	1,464,855	147,372	7,582,089,480	.00001944
40	5180	305,420	110,983	1,582,075,600	.00007015
41	5352	1,420,302	151,208	7,601,456,304	.00001989

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

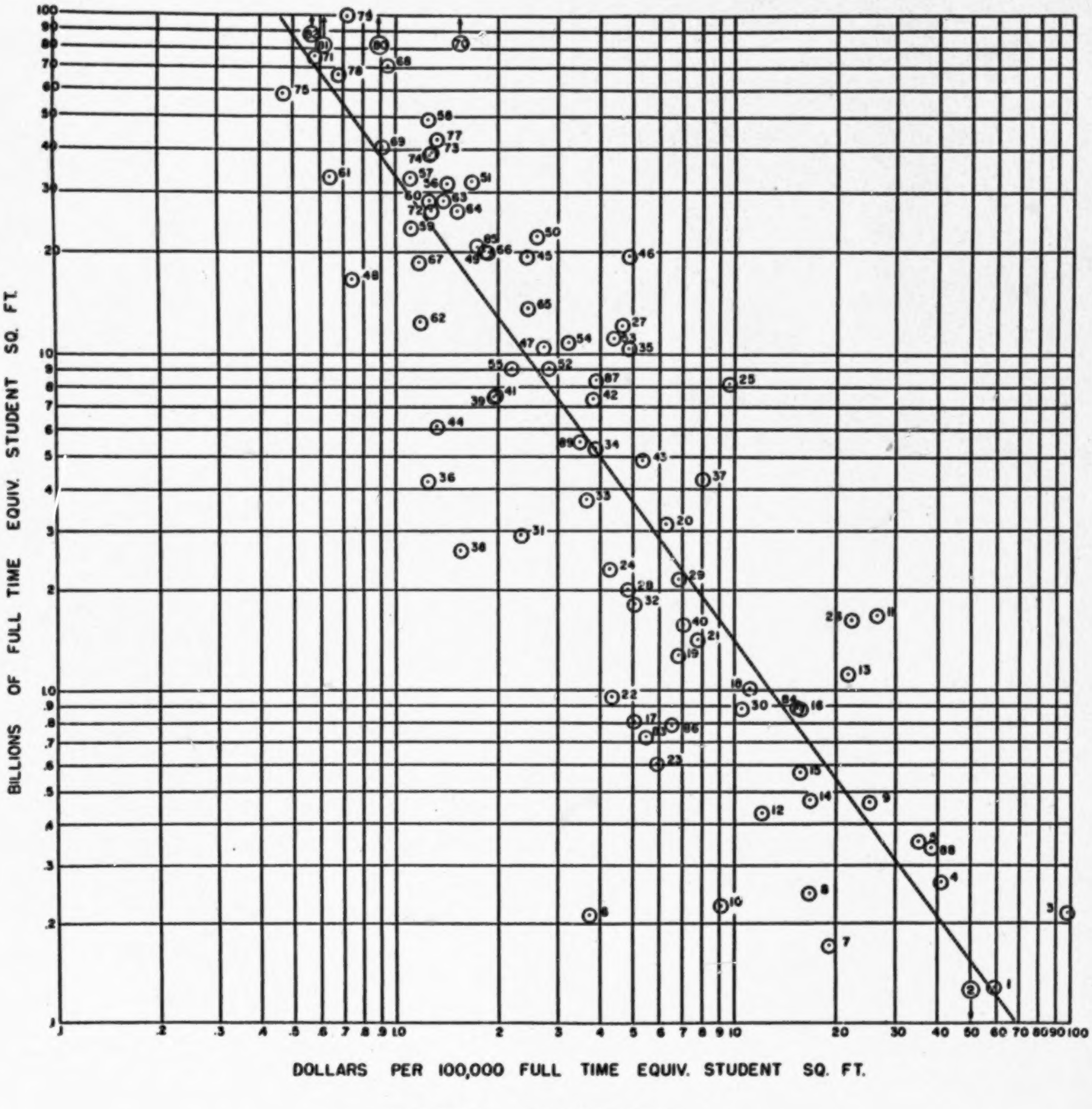
BUILDING MAINTENANCE

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	283,700	7,439,295,625	.00003814
43	6018	816,111	264,739	4,911,355,998	.00005390
44	6367	973,678	82,404	6,199,407,826	.00001329
45	6400	3,043,947	482,724	19,481,260,800	.00002478
46	6416	3,075,000	974,000	19,729,200,000	.00004937
47	6667	1,600,000	294,800	10,667,200,000	.00002764
48	7693	2,208,900	125,757	16,993,067,700	.00000740
49	8275	2,452,267	368,674	20,292,509,425	.00001817
50	8353	2,675,180	582,082	22,345,778,540	.00002605
51	8357	3,842,040	544,530	32,107,928,280	.00001696
52	8609	1,058,487	256,774	9,112,514,583	.00002815
53	8950	1,243,000	488,340	11,124,850,000	.00004390
54	9232	1,186,670	354,430	10,955,337,440	.00003235
55	9360	990,862	204,000	9,274,468,320	.00002199
56	9395	3,415,732	470,190	32,090,802,140	.00001465
57	10372	3,161,499	361,951	32,791,067,628	.00001104
58	10388	4,711,312	607,038	48,941,109,056	.00001240
59	10500	2,274,000	263,400	23,877,000,000	.00001103
60	10770	2,628,023	366,258	28,303,807,710	.00001294
61	10878	3,017,807	212,886	32,827,704,546	.00000648
62	11455	1,089,788	147,085	12,483,521,540	.00001178
63	12451	2,264,336	392,481	28,193,247,536	.00001392
64	12546	2,104,850	399,049	26,407,448,100	.00001511
65	12620	1,103,340	342,495	13,924,150,800	.00002460
66	12643	1,589,202	381,468	20,092,280,886	.00001899
67	13020	1,453,498	223,119	18,924,543,960	.00001179
68	13321	5,444,000	688,340	72,519,524,000	.00000949
69	13474	3,062,100	375,810	41,258,735,400	.00000911
70	13902	8,378,059	1,797,000	116,471,776,218	.00001542
71	14111	5,342,000	440,100	75,380,962,000	.00000584
72	14498	1,826,182	338,174	26,475,986,636	.00001277
73	14714	2,688,493	510,675	39,558,486,002	.00001291
74	15006	2,572,720	490,248	38,606,236,320	.00001270
75	15113	3,854,238	273,822	58,249,098,894	.00000470
76	15644				
77	16460	2,632,388	592,409	43,329,106,480	.00001367
78	19296	3,498,085	460,232	67,499,048,160	.00000682
79	20827	4,823,818	736,203	100,465,657,486	.00000733
80	24932	4,855,622	1,085,609	121,060,367,704	.00000897
81	25568	5,443,616	883,222	139,182,373,888	.00000635
82	27847	5,408,229	846,629	150,602,952,963	.00000562
83	1363	536,822	40,135	731,688,386	.00005485
84	993	904,820	140,626	898,486,260	.00015651
85	9033	2,261,612	356,938	20,429,141,196	.00001747
86	1615	490,847	51,851	792,717,905	.00006541
87	5139	1,650,016	327,447	8,479,432,224	.00003862
88	714	477,181	131,100	340,707,234	.00038479
89	5257	1,057,378	194,866	5,558,636,146	.00003506



BUILDING MAINTENANCE

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



BUILDING MAINTENANCE

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

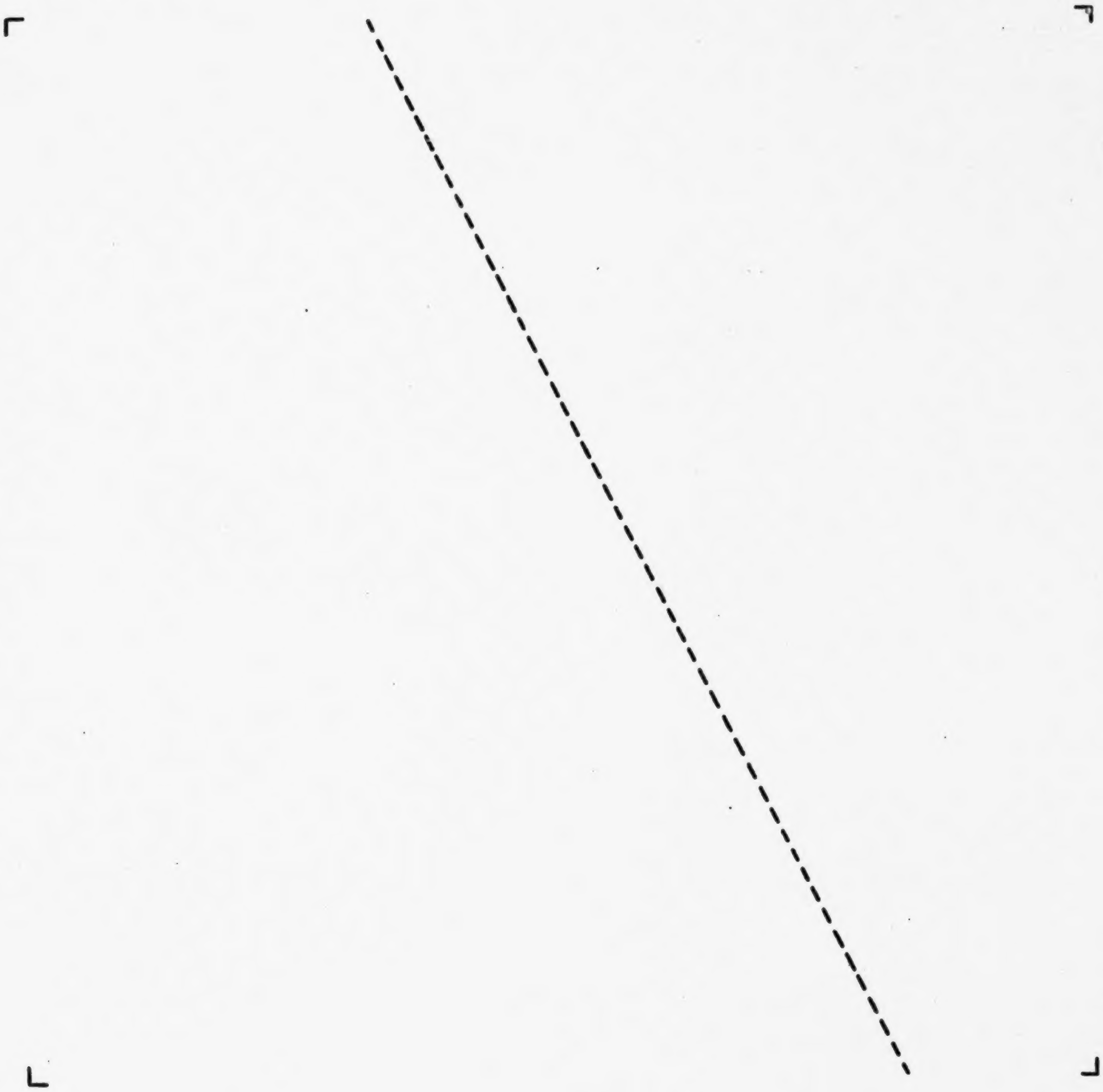
JANITORIAL SERVICES

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	58,000	128,960,000	.00044975
2	424	105,000	50,000	44,520,000	.00112309
3	505	307,491	95,937	155,282,955	.00061782
4	510	485,206	145,623	247,455,060	.00058848
5	565	606,076	158,530	342,432,940	.00046295
6	672	299,330	16,000	201,149,760	.00007954
7	700	247,850	29,300	173,495,000	.00016888
8	939	275,967	38,443	259,133,013	.00014836
9	1000	452,370	207,500	452,370,000	.00045869
10	1018	220,980	33,570	224,957,640	.00014923
11	1375	1,233,000	271,000	1,695,375,000	.00015985
12	1433	301,727	52,650	432,374,791	.00012177
13	1453	732,115	118,455	1,063,763,095	.00011135
14	1513	313,059	82,877	473,658,167	.00017497
15	1600	356,253	80,880	570,004,800	.00014189
16	1726	508,600	109,308	877,843,600	.00012452
17	2177	275,064	58,832	598,814,328	.00009825
18	2362	450,000	71,000	1,062,900,000	.00006681
19	2387	267,203	34,722	637,813,561	.00005444
20	2421	1,263,900	190,090	3,059,901,900	.00006212
21	2749	513,271	137,250	1,410,981,979	.00009727
22	2843	336,845	36,511	957,650,335	.00003813
23	3211	189,323	35,277	607,916,153	.00005803
24	3299	707,964	101,610	2,335,573,236	.00004351
25	3400	2,441,485	538,634	8,301,049,000	.00006489
26	3499	472,850	233,228	1,654,502,150	.00014097
27	3530	3,432,000	972,000	12,114,960,000	.00008023
28	3568	562,527	88,832	2,007,096,336	.00004426
29	3761	576,561	143,000	2,168,445,921	.00006595
30	3844	227,605	117,784	874,913,620	.00013462
31	3925	413,841	55,431	1,624,325,925	.00003413
32	4350	422,598	115,699	1,838,301,300	.00006294
33	4568	825,618	112,284	3,771,423,024	.00002977
34	4609	1,140,045	213,643	5,254,467,405	.00004066
35	4691	1,520,172	404,164	7,131,126,852	.00005668
36	4817	729,600	77,545	3,514,483,200	.00002206
37	5047	866,466	218,488	4,373,053,902	.00004996
38	5165	400,373	151,258	2,067,926,545	.00007315
39	5176	1,024,260	221,782	5,301,569,760	.00004183
40	5180	210,000	144,519	1,087,800,000	.00013285
41	5352	836,210	136,710	4,475,395,920	.00003055

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

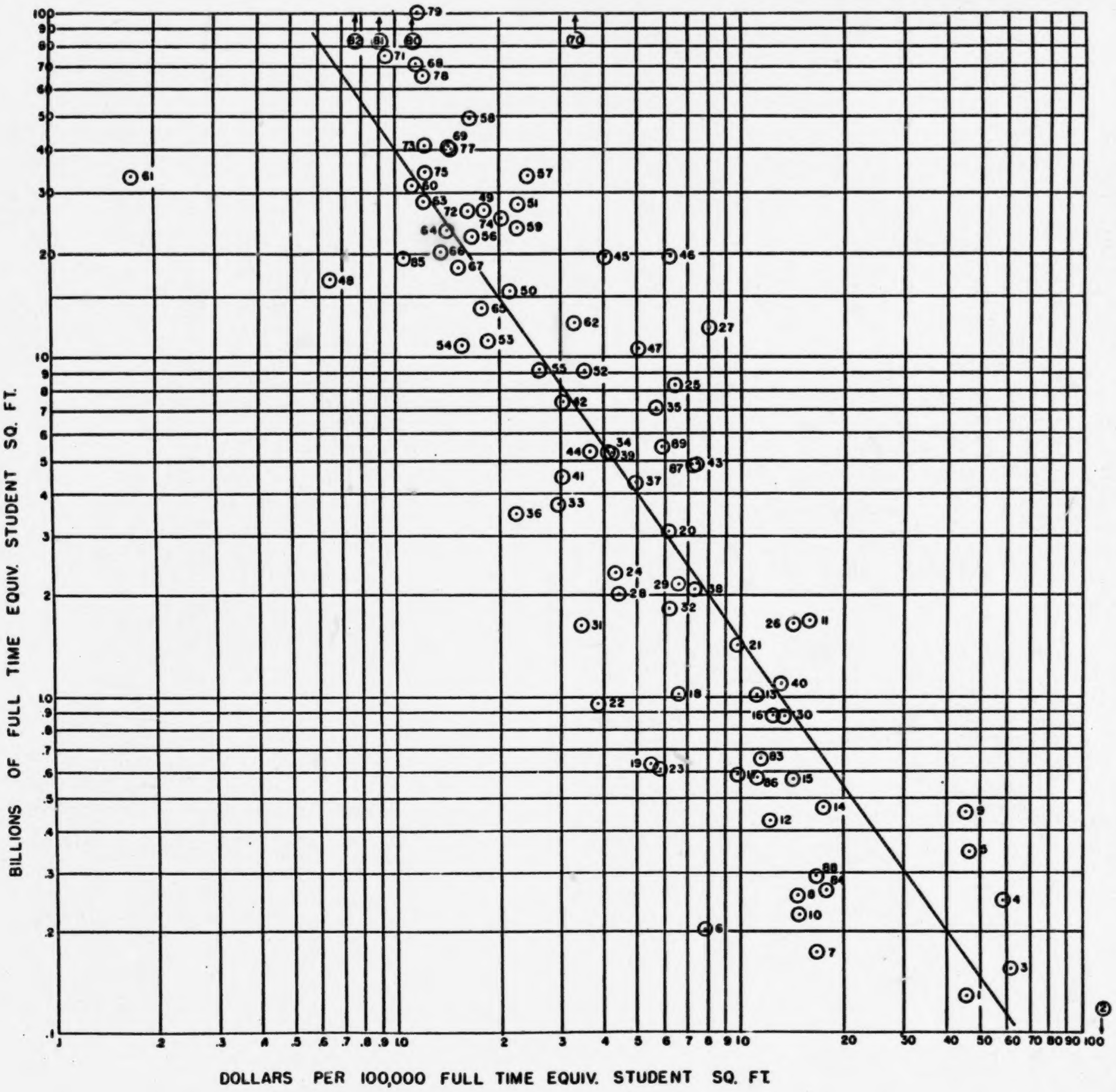
JANITORIAL SERVICES

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	225,730	7,439,295,625	.00003034
43	6018	816,111	363,710	4,911,355,998	.00007406
44	6367	837,200	192,730	5,330,452,400	.00003616
45	6400	3,043,947	785,941	19,481,260,800	.00004034
46	6416	3,075,000	1,260,000	19,729,200,000	.00006387
47	6667	1,600,000	540,400	10,667,200,000	.00005066
48	7693	2,208,900	109,767	16,933,067,700	.00000648
49	8275	3,247,881	485,947	26,876,215,275	.00001808
50	8353	1,865,019	334,566	15,578,503,707	.00002148
51	8357	3,344,000	639,607	27,945,808,000	.00002289
52	8609	1,058,487	320,138	9,112,514,583	.00003513
53	8950	1,243,000	206,068	11,124,850,000	.00001852
54	9232	1,186,670	169,336	10,955,337,440	.00001546
55	9360	990,862	241,520	9,274,468,320	.00002604
56	9395	2,357,349	369,972	22,147,293,855	.00001671
57	10372	3,161,499	792,413	32,791,067,628	.00002417
58	10388	4,711,312	809,036	48,941,109,056	.00001653
59	10500	2,274,000	537,700	23,877,000,000	.00002252
60	10770	2,954,098	353,543	31,815,635,460	.00001111
61	10878	3,017,807	56,478	32,827,704,546	.00000172
62	11455	1,089,788	416,805	12,483,521,540	.00003338
63	12451	2,264,336	340,482	28,193,247,536	.00001208
64	12546	1,859,646	326,831	23,331,118,716	.00001401
65	12620	1,103,340	245,705	13,924,150,800	.00001765
66	12643	1,589,202	270,882	20,092,280,886	.00001348
67	13020	1,389,486	275,541	18,091,107,720	.00001523
68	13321	5,444,000	842,774	72,519,524,000	.00001162
69	13474	3,062,100	590,510	41,258,735,400	.00001431
70	13902	7,863,000	3,637,000	109,311,426,000	.00003327
71	14111	5,342,000	709,000	75,380,962,000	.00000941
72	14498	1,826,182	429,993	26,475,986,636	.00001624
73	14714	2,758,262	488,238	40,585,067,068	.00001200
74	15006	1,730,973	535,328	25,974,980,838	.00002061
75	15113	2,281,352	417,902	34,478,072,776	.00001212
76	15644				
77	16460	2,443,154	586,625	40,214,314,840	.00001459
78	19296	3,376,054	781,413	65,144,337,984	.00001199
79	20827	4,823,818	1,169,560	100,465,657,486	.00001164
80	24932	4,380,000	1,245,493	109,202,160,000	.00001141
81	25568	5,443,616	1,254,732	139,182,373,888	.00000902
82	27847	4,402,726	941,505	122,602,710,922	.00000768
83	1363	485,051	76,534	661,124,513	.00011576
84	993	265,407	47,302	263,549,151	.00017948
85	9033	2,190,105	211,555	19,783,218,465	.00001069
86	1615	360,451	64,559	582,128,365	.00011090
87	5139	955,941	351,817	4,912,580,799	.00007162
88	714	418,694	50,000	298,947,516	.00016725
89	5257	1,057,378	332,554	5,558,636,146	.00005983



JANITORIAL SERVICES

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



JANITORIAL SERVICES

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

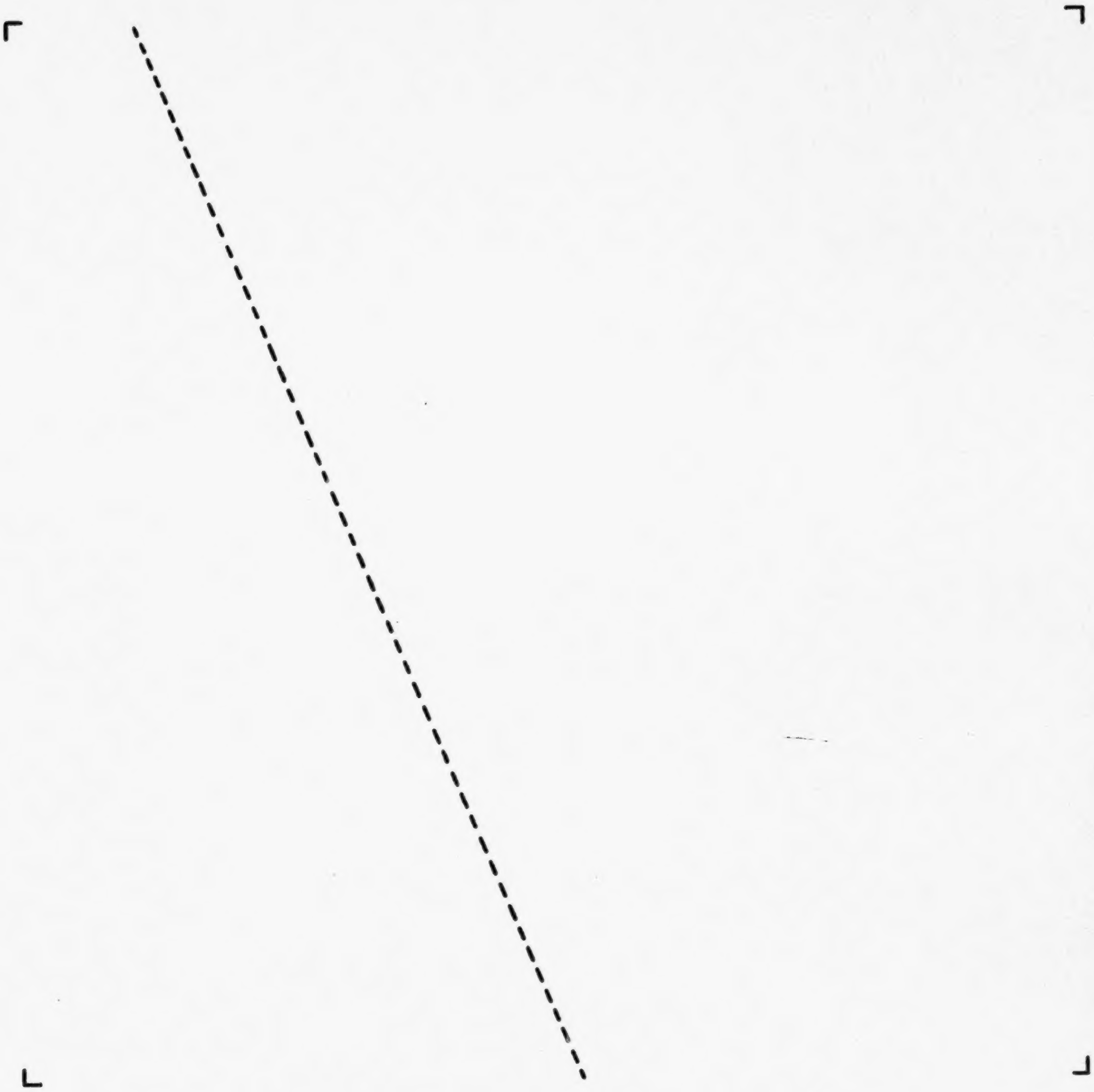
TRAFFIC & SECURITY

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	37,563	128,960,000	.00029127
2	424	105,000	17,000	44,520,000	.00038185
3	505	425,597	7,080	214,926,485	.00003294
4	510	549,509	19,890	280,249,590	.00007097
5	565	624,821	77,997	353,023,865	.00022094
6	672	314,756	1,000	211,516,032	.00000473
7	700				
8	939	275,967	2,800	259,133,013	.00001081
9	1000	462,240	21,600	462,240,000	.00004673
10	1018	349,080	3,875	355,363,440	.00001090
11	1375	1,233,000	40,000	1,695,375,000	.00002359
12	1433	349,327	12,500	500,585,591	.00002497
13	1453	773,931	5,000	1,124,521,743	.00000445
14	1513	394,011	4,844	596,138,643	.00000813
15	1600	356,253	36,013	570,004,800	.00006318
16	1726	508,600	17,390	877,843,600	.00001981
17	2177	556,759	6,500	1,212,064,343	.00000536
18	2362	800,000	16,000	1,889,600,000	.00000847
19	2387	537,700	9,484	1,283,489,900	.00000739
20	2421	1,302,800	29,376	3,154,078,800	.00000931
21	2749	513,271	22,000	1,410,981,979	.00001559
22	2843	506,499	8,671	1,439,976,657	.00000602
23	3211	211,997	3,337	680,722,367	.00000490
24	3299	1,221,546	19,761	4,029,880,254	.00000490
25	3400	2,441,485	64,740	8,301,049,000	.00000780
26	3499	376,700	14,000	1,318,073,300	.00001062
27	3530	3,432,000	204,000	12,114,960,000	.00001684
28	3568	769,454	18,371	2,745,411,872	.00000670
29	3761	837,996	64,950	3,151,702,956	.00002061
30	3844	227,605	4,881	874,913,620	.00000558
31	3925	746,893	9,570	2,931,555,025	.00000326
32	4350	422,598	17,368	1,838,301,300	.00000945
33	4568				
34	4609	1,140,045	27,992	5,254,467,405	.00000533
35	4691	3,202,344	111,028	15,022,195,704	.00000739
36	4817	873,640	13,171	420,832,388	.00000313
37	5047	1,330,816	29,715	6,716,628,352	.00000442
38	5165	508,294	25,635	2,625,338,510	.00000976
39	5176	1,464,855	30,273	7,582,089,480	.00000400
40	5180	305,420	31,600	1,582,075,600	.00001997
41	5352	1,501,614	14,640	8,036,638,128	.00000182

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

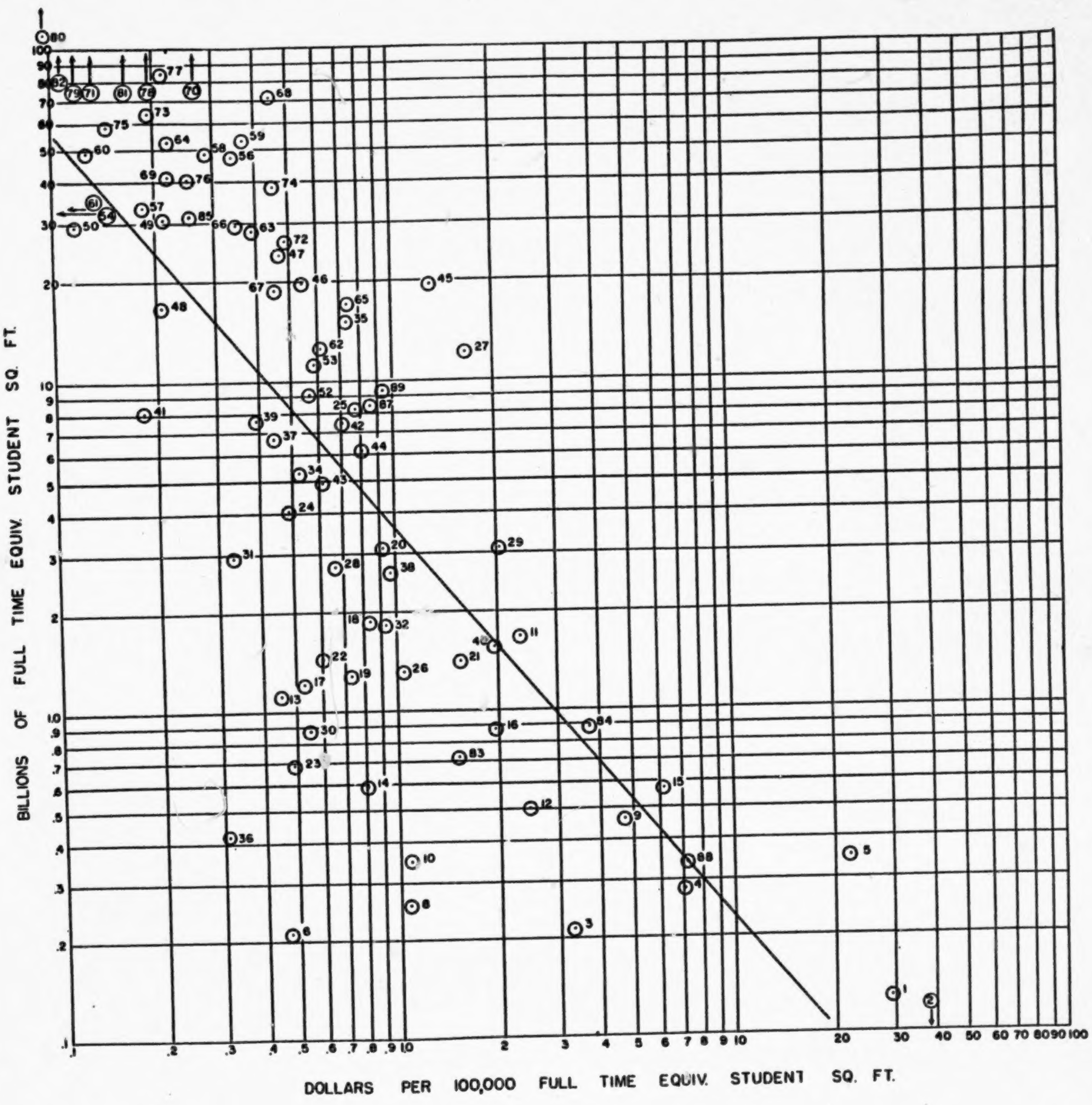
TRAFFIC & SECURITY

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	53,400	7,439,295,625	.00000718
43	6018	816,111	31,308	4,911,355,998	.00000638
44	6367	973,678	51,120	6,199,407,826	.00000825
45	6400	3,043,947	253,685	19,481,260,800	.00001302
46	6416	3,075,000	107,000	19,729,200,000	.00000542
47	6667	3,600,000	111,500	24,001,200,000	.00000465
48	7693	2,208,900	35,580	16,993,067,700	.00000209
49	8275	3,742,048	65,055	30,965,447,200	.00000210
50	8353	3,520,286	34,330	29,404,948,958	.00000117
51	8357				
52	8609	1,058,487	52,152	9,112,514,583	.00000572
53	8950	1,243,000	65,293	11,124,850,000	.00000587
54	9232	3,484,800	20,522	32,171,673,600	.00000064
55	9360				
56	9395	5,049,378	162,061	47,438,906,310	.00000342
57	10372	3,161,499	61,000	32,791,067,628	.00000186
58	10388	4,711,312	140,810	48,941,109,056	.00000288
59	10500	5,004,000	196,700	52,542,000,000	.00000374
60	10770	4,568,034	62,643	49,197,726,180	.00000127
61	10878	3,017,807	12,200	32,827,704,546	.00000037
62	11455	1,089,788	79,250	12,483,521,540	.00000635
63	12451	2,264,336	110,328	28,193,247,536	.00000391
64	12546	4,170,860	115,594	52,327,609,560	.00000221
65	12620	1,357,459	127,827	17,131,132,580	.00000746
66	12643	2,335,420	103,830	29,526,715,060	.00000352
67	13020	1,453,498	85,347	18,924,543,960	.00000451
68	13321	5,444,000	322,720	72,519,524,000	.00000445
69	13474	3,062,100	91,080	41,258,735,400	.00000221
70	13902	8,378,059	310,000	116,471,776,218	.00000266
71	14111	9,500,000	176,000	134,054,500,000	.00000131
72	14498	1,826,182	129,872	26,475,986,636	.00000491
73	14714	4,350,191	124,437	64,008,710,374	.00000194
74	15006	2,572,720	172,353	38,606,236,320	.00000446
75	15113	3,854,238	86,094	58,249,098,894	.00000148
76	15644	2,572,421	101,034	40,242,954,124	.00000251
77	16460	5,118,338	180,628	84,247,843,480	.00000214
78	19296	7,387,690	277,985	142,552,866,240	.00000195
79	20827	8,466,165	207,662	176,324,818,455	.00000118
80	24932	9,260,282	219,594	230,877,350,824	.00000095
81	25568	5,443,616	231,420	139,182,373,888	.00000166
82	27847	10,780,250	323,290	300,197,621,750	.00000108
83	1363	536,822	11,038	731,688,386	.00001509
84	993	904,820	33,156	898,486,260	.00003690
85	9033	3,408,265	78,462	30,786,857,745	.00000255
86	1615				
87	5139	1,650,016	73,476	8,479,432,224	.00000867
88	714	477,181	25,000	340,707,234	.00007338
89	5257	1,785,608	88,877	9,386,941,256	.00000947



TRAFFIC AND SECURITY

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



TRAFFIC & SECURITY

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

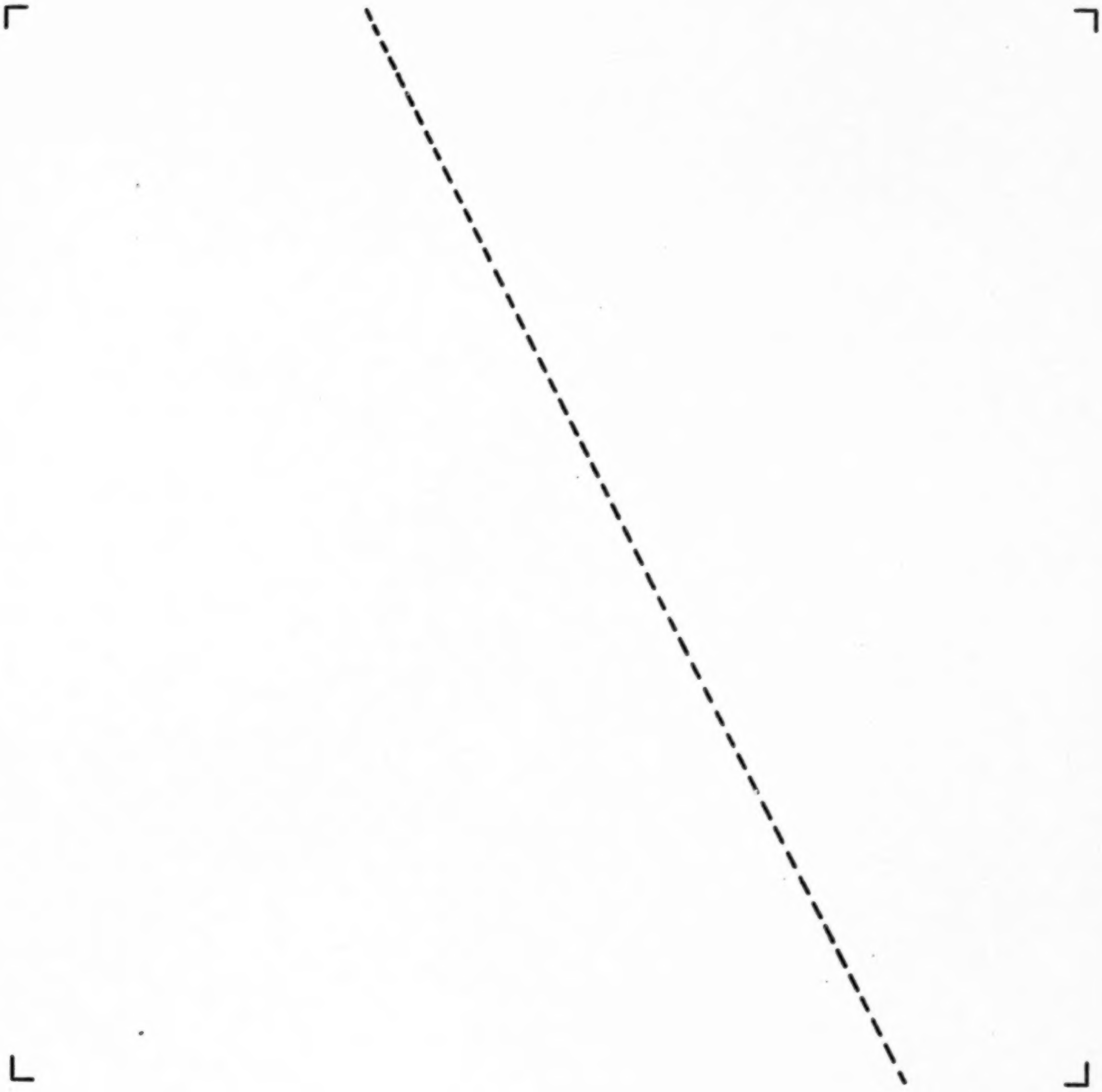
UTILITIES

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	176,912	128,960,000	.00137184
2	424	105,000	100,000	44,520,000	.00224618
3	505	425,597	184,000	214,926,485	.00085611
4	510	549,509	216,435	280,249,590	.00077230
5	565	624,821	271,588	353,023,865	.00076932
6	672	314,756	33,000	211,516,032	.00015602
7	700	350,200	37,556	245,140,000	.00015320
8	939	275,967	49,657	259,133,013	.00019163
9	1000	462,240	72,800	462,240,000	.00015749
10	1018	220,980	61,324	224,957,640	.00027260
11	1375	1,233,000	311,000	1,695,375,000	.00018344
12	1433	621,058	106,572	889,976,114	.00011975
13	1453	773,931	65,850	1,124,521,743	.00005856
14	1513	313,059	87,222	473,658,167	.00018413
15	1600	356,253	92,118	570,004,800	.00016161
16	1726	508,600	31,801	877,843,600	.00003623
17	2177	275,064	67,748	598,814,328	.00011314
18	2362	450,000	50,000	1,062,900,000	.00004704
19	2387	537,700	57,663	1,283,489,900	.00004493
20	2421	1,302,800	220,429	3,154,078,800	.00006989
21	2749	748,602	104,480	2,057,906,898	.00005077
22	2843	336,845	52,666	957,650,335	.00005500
23	3211	211,997	39,807	680,722,367	.00005848
24	3299	1,221,546	312,167	4,029,880,254	.00007746
25	3400				
26	3499	472,850	150,000	1,654,502,150	.00009066
27	3530	3,432,000	870,000	12,114,960,000	.00007181
28	3568	769,454	129,753	2,745,411,872	.00004726
29	3761	576,561	261,051	2,168,445,921	.00012039
30	3844	227,605	82,418	874,913,620	.00009420
31	3925	746,893	111,440	2,931,555,025	.00003801
32	4350	422,598	64,962	1,838,301,300	.00003534
33	4568	825,618	137,052	3,771,423,024	.00003634
34	4609	1,140,045	272,454	5,254,467,405	.00005185
35	4691	3,202,344	647,584	15,022,195,704	.00004311
36	4817	873,640	123,852	4,208,323,880	.00002943
37	5047	1,330,816	199,838	6,716,628,352	.00002975
38	5165	482,548	107,921	2,492,360,420	.00004330
39	5176	1,464,855	455,772	7,582,089,480	.00006011
40	5180	305,420	118,836	1,582,075,600	.00007511
41	5352	1,501,614	261,000	8,036,638,128	.00003248

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

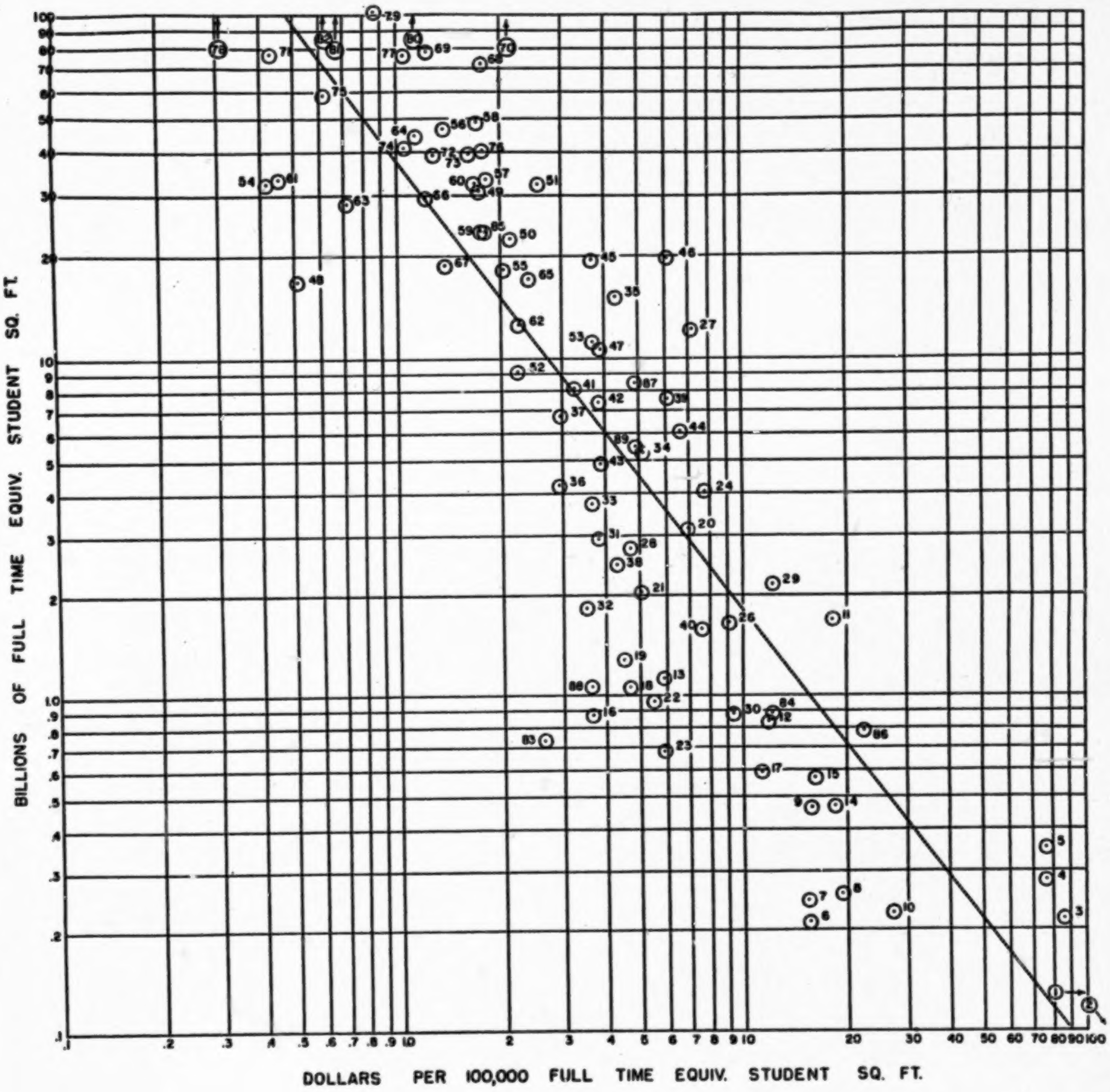
UTILITIES

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	285,560	7,439,295,625	.00003839
43	6018	816,111	193,865	4,911,355,998	.00003947
44	6367	973,678	408,208	6,199,407,826	.00006585
45	6400	3,043,947	710,008	19,481,260,800	.00003645
46	6416	3,075,000	1,211,000	19,729,200,000	.00006138
47	6667	1,600,000	415,500	10,667,200,000	.00003895
48	7693	2,208,900	87,245	16,993,067,700	.00000513
49	8275	3,742,048	532,210	30,965,447,200	.00001719
50	8353	2,675,180	475,180	22,345,778,540	.00002127
51	8357	3,842,040	829,537	32,107,928,280	.00002584
52	8609	1,058,487	201,121	9,112,514,583	.00002207
53	8950	1,243,000	409,892	11,124,850,000	.00003685
54	9232	3,484,800	135,000	32,171,673,600	.00000420
55	9360	1,933,268	365,241	18,095,388,480	.00002018
56	9395	4,911,747	636,330	46,145,863,065	.00001379
57	10372	3,161,499	595,628	32,791,067,628	.00001816
58	10388	4,711,312	835,165	48,941,109,056	.00001707
59	10500	2,274,000	418,800	23,877,000,000	.00001754
60	10770	3,002,380	546,718	32,335,632,600	.00001691
61	10878	3,017,807	147,750	32,827,704,546	.00000450
62	11455	1,089,788	282,099	12,483,521,540	.00002260
63	12451	2,264,336	200,052	28,193,247,536	.00000710
64	12546	3,526,477	498,368	44,243,180,442	.00001126
65	12620	1,357,459	412,185	17,131,132,580	.00002406
66	12643	2,335,420	356,676	29,526,715,060	.00001208
67	13020	1,453,498	260,801	18,924,543,960	.00001378
68	13321	5,444,000	1,294,187	72,519,524,000	.00001785
69	13474	5,773,800	948,100	77,796,181,200	.00001219
70	13902	8,378,059	2,446,000	116,471,776,218	.00002100
71	14111	5,342,000	326,000	75,380,962,000	.00000433
72	14498	2,744,259	509,113	39,786,266,982	.00001280
73	14714	2,688,493	638,294	39,558,486,002	.00001614
74	15006	2,752,334	432,599	41,301,524,004	.00001047
75	15113	3,854,238	365,331	58,249,098,894	.00000627
76	15644	2,572,421	724,315	40,242,954,124	.00001800
77	16460	4,612,810	795,547	75,926,852,600	.00001048
78	19296	6,887,826	403,473	132,907,490,496	.00000304
79	20827	4,823,818	865,514	100,465,657,486	.00000862
80	24932	4,855,622	1,352,513	121,060,367,704	.00001117
81	25568	5,443,616	938,946	139,182,373,888	.00000675
82	27847	9,127,379	1,587,485	254,170,123,013	.00000625
83	1363	536,822	19,036	731,688,386	.00002602
84	993	904,820	110,017	898,486,260	.00012245
85	9033	2,643,118	431,926	23,875,284,894	.00001809
86	1615	490,847	177,762	792,717,905	.00022424
87	5139	1,650,016	419,454	8,479,432,224	.00004947
88	714	1,495,875	38,500	1,068,054,750	.00003605
89	5257	1,057,378	274,332	5,558,636,146	.00004935



UTILITIES

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



UTILITIES

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

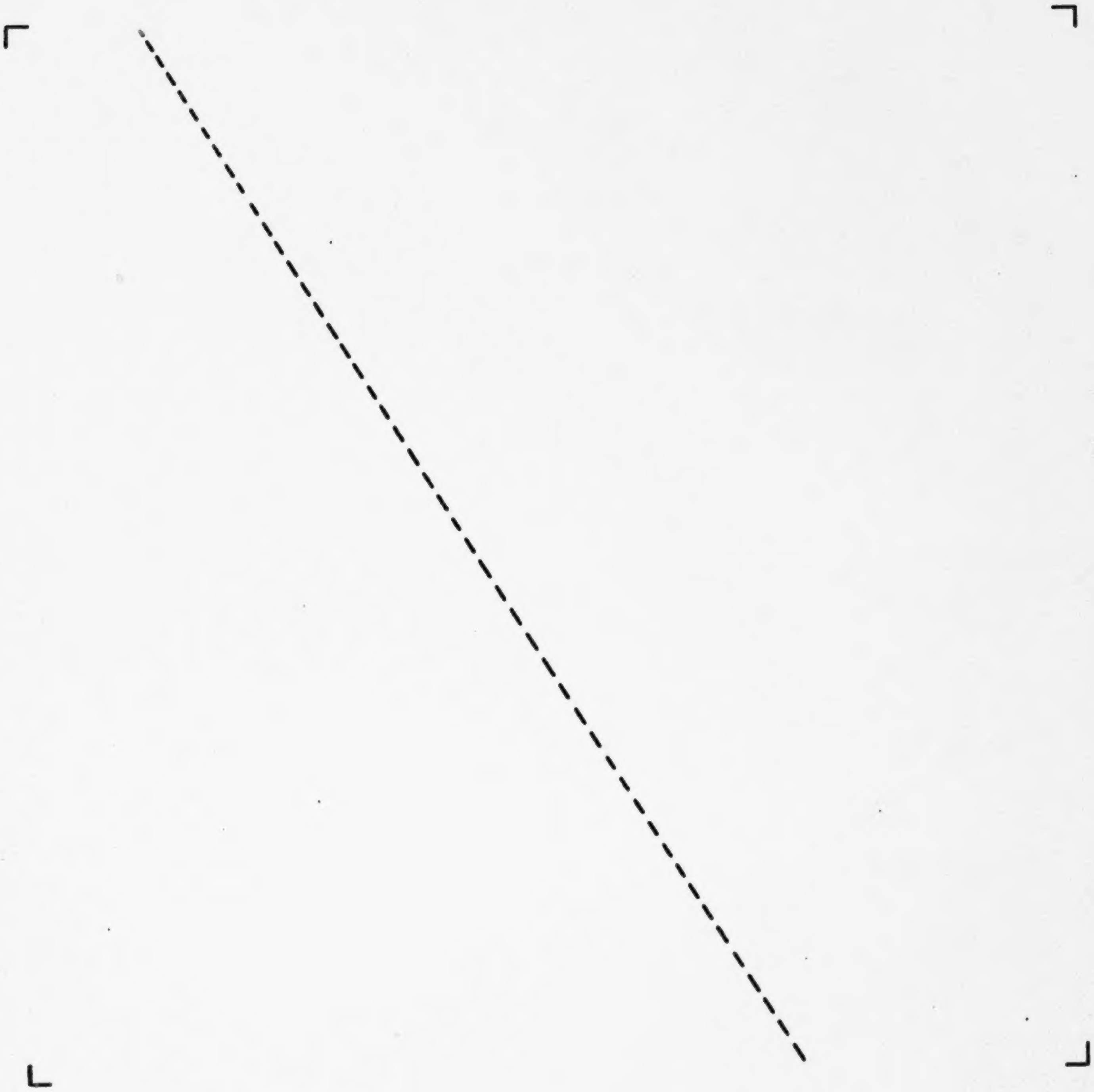
GROUNDS

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
1	416	310,000	26,340	128,960,000	.00020425
2	424	105,000	20,000	44,520,000	.00044924
3	505	425,597	8,288	214,926,485	.00003856
4	510	523,909	28,230	267,193,590	.00010565
5	565	624,821	72,072	353,023,865	.00020416
6	672	314,756	1,000	211,516,032	.00000473
7	700	350,200	8,855	245,140,000	.00003612
8	939	275,967	5,415	259,133,013	.00002090
9	1000	462,240	49,800	462,240,000	.00010774
10	1018	349,080	19,024	355,363,440	.00005353
11	1375	1,233,000	88,000	1,695,375,000	.00005191
12	1433	675,000	56,340	967,275,000	.00005825
13	1453	773,931	31,215	1,124,521,743	.00002776
14	1513	313,059	43,310	473,658,167	.00009144
15	1600	356,253	63,924	570,004,800	.00011215
16	1726	508,600	43,768	877,843,600	.00004986
17	2177	3,178,000	17,122	6,918,506,000	.00000248
18	2362	800,000	43,500	1,889,600,000	.00002302
19	2387	537,700	19,757	1,283,489,900	.00001539
20	2421	1,302,800	84,050	3,154,078,800	.00002665
21	2749	513,271	27,050	1,410,981,979	.00001917
22	2843	506,499	31,378	1,439,976,657	.00002179
23	3211	211,997	29,038	680,722,367	.00004266
24	3299	707,964	70,284	2,335,573,236	.00003009
25	3400	2,441,485	151,805	8,301,049,000	.00001829
26	3499	472,850	14,000	1,654,502,150	.00000846
27	3530	3,432,000	224,000	12,114,960,000	.00001849
28	3568	779,454	29,921	2,781,091,872	.00001076
29	3761	837,996	110,150	3,151,702,956	.00003495
30	3844	227,605	57,208	874,913,620	.00006539
31	3925	413,841	17,442	1,624,325,925	.00001074
32	4350	422,598	55,765	1,838,301,300	.00003034
33	4568	825,618	66,049	3,771,423,024	.00001751
34	4609	1,140,045	23,070	5,254,467,405	.00000439
35	4691	3,202,344	315,050	15,022,195,704	.00002097
36	4817	873,640	46,482	4,208,323,880	.00001105
37	5047	1,330,816	30,874	6,716,628,352	.00000460
38	5165	508,294	33,590	2,625,338,510	.00001280
39	5176	1,464,855	82,471	7,582,089,480	.00001088
40	5180	305,420	54,040	1,582,075,600	.00003416
41	5352	1,351,453	48,005	7,232,976,456	.00000664

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

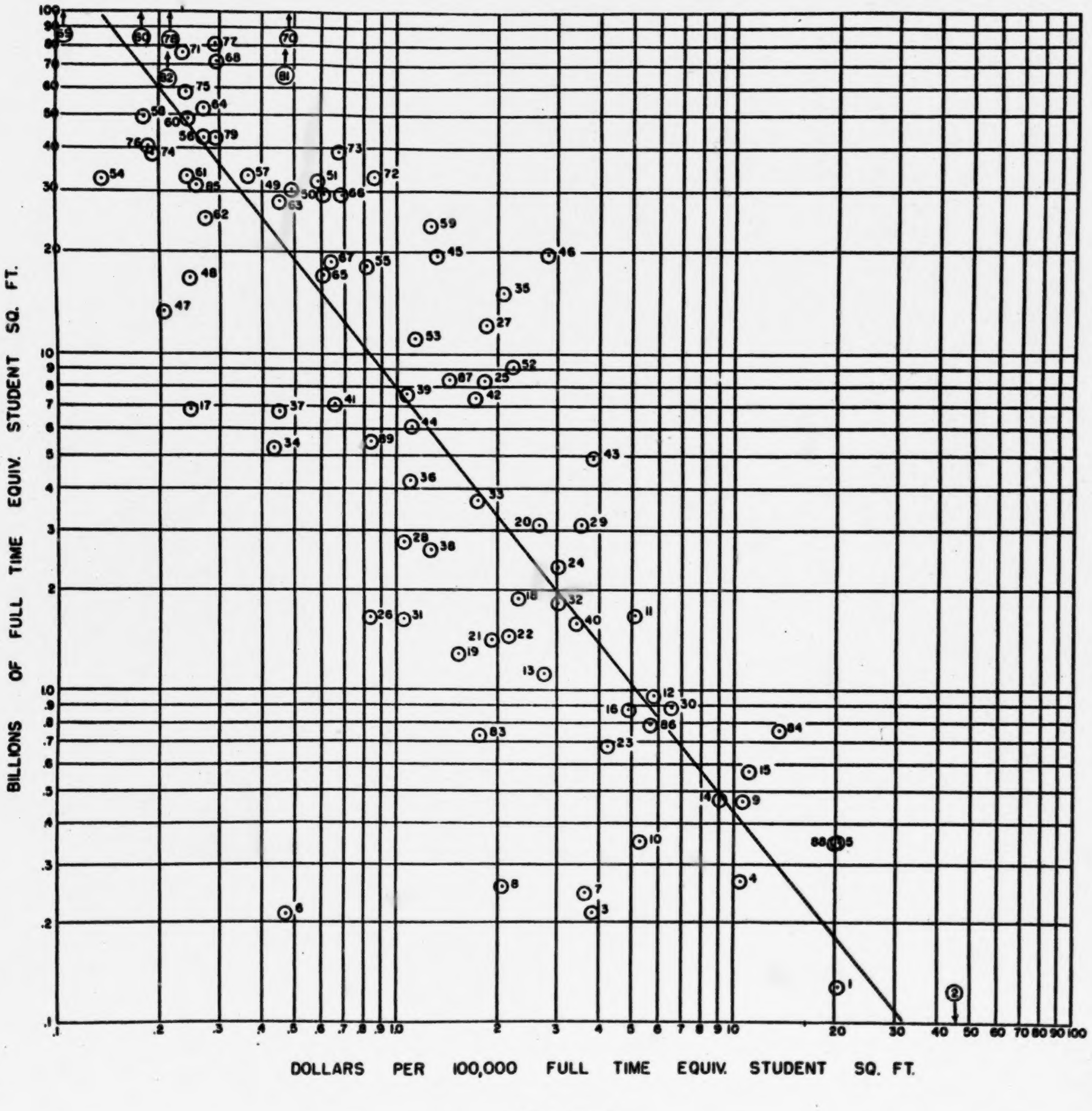
GROUNDS

NO.	F.T.E.	SQ. FT.	COST	FTESSF	COST ÷ FTESSF
42	5375	1,384,055	126,935	7,439,295,625	.00001706
43	6018	816,111	188,353	4,911,355,998	.00003835
44	6367	973,678	68,628	6,199,407,826	.00001107
45	6400	3,043,947	258,306	19,481,260,800	.00001326
46	6416	3,075,000	556,000	19,729,200,000	.00002818
47	6667	2,000,000	27,500	13,334,000,000	.00000206
48	7693	2,208,900	41,855	16,993,067,700	.00000246
49	8275	3,742,048	150,537	30,965,447,200	.00000486
50	8353	3,520,286	184,555	29,404,948,958	.00000628
51	8357	3,842,040	191,840	32,107,928,280	.00000598
52	8609	1,058,487	202,497	9,112,514,583	.00002222
53	8950	1,243,000	126,242	11,124,850,000	.00001135
54	9232	3,484,800	44,360	32,171,673,600	.00000138
55	9360	1,933,268	149,686	18,095,388,480	.00000827
56	9395	4,661,487	118,817	43,794,670,365	.00000271
57	10372	3,161,499	120,349	32,791,067,628	.00000367
58	10388	3,711,312	89,686	48,941,109,056	.00000183
59	10500	2,274,000	303,800	23,877,000,000	.00001272
60	10770	4,633,611	122,169	49,903,990,470	.00000245
61	10878	3,017,807	79,202	32,827,704,546	.00000241
62	11455	2,190,000	68,650	25,086,450,000	.00000274
63	12451	2,264,336	129,102	28,193,247,536	.00000458
64	12546	4,170,860	142,218	52,327,609,560	.00000272
65	12620	1,357,459	104,915	17,131,132,580	.00000612
66	12643	2,335,420	202,280	29,526,715,060	.00000685
67	13020	1,453,490	122,819	18,924,543,960	.00000649
68	13321	5,444,000	216,243	72,519,524,000	.00000298
69	13474	17,424,000	248,650	234,770,976,000	.00000106
70	13902	8,378,059	560,000	116,471,776,218	.00000481
71	14111	5,342,000	206,600	75,380,962,000	.00000274
72	14498	2,277,970	285,184	33,026,009,060	.00000864
73	14714	2,688,493	271,088	39,558,486,002	.00000685
74	15006	2,572,720	74,074	38,606,236,320	.00000192
75	15113	3,854,238	168,827	58,249,098,894	.00000290
76	15644	2,572,421	75,404	40,242,954,124	.00000187
77	16460	4,878,242	234,783	80,295,863,320	.00000292
78	19296	7,387,690	302,728	142,552,866,240	.00000212
79	20827	2,105,404	130,000	43,849,249,108	.00000297
80	24932	4,855,622	217,114	121,060,367,704	.00000179
81	25568	5,443,616	660,555	139,182,373,888	.00000475
82	27847	5,408,229	319,689	150,602,952,963	.00000212
83	1363	536,822	13,136	731,688,386	.00001795
84	993	765,040	103,751	759,684,720	.00013657
85	9033	3,408,265	79,670	30,786,857,745	.00000259
86	1615	490,847	44,862	792,717,905	.00005659
87	5139	1,650,016	121,787	8,479,432,224	.00001436
88	714	477,181	67,500	340,707,234	.00019812
89	5257	1,057,378	46,694	5,558,636,146	.00000840



GROUNDS

Scatter diagram with trend line plotted by eye, disregarding costs, deviating considerably from the average experience trend.



GROUNDS

(SCATTER DIAGRAM WITH TREND LINE PLOTTED STATISTICALLY)

AVERAGE SKILLED LABOR
Rates as Reported

Minimum - Under $2.00

1.	Southwest Medical	Dallas, Texas	1.79-2.31
6.	B		1.59-1.73
7.	Iowa Wesleyan	Mt. Pleasant, Iowa	1.42-2.45
8.	William Jewell	Liberty, Missouri	1.36-1.88
14.	E		1.56-2.21
16.	George Peabody	Nashville, Tennessee	1.85-2.50
17.	Evansville University	Evansville, Indiana	1.80-2.11
19.	G		1.20-1.83
21.	University of Windsor	Windsor, Ontario	2.15
22.	Washburn University	Topeka, Kansas	1.68-2.41
23.	Pan American	Edinburg, Texas	.75-2.07
28.	Texas Southern	Houston, Texas	1.92-2.48
29.	University of S. Florida	Tampa, Florida	1.39-3.12
33.	University of Mississippi	Univeristy, Mississippi	1.97
34.	University of Louisville	Louisville, Kentucky	1.74-1.97
36.	Wichita State University	Wichita, Kansas	1.84-2.60
41.	Southern Methodist	Dallas, Texas	1.82-1.83
44.	Tulane University	New Orleans, Louisiana	1.92-2.46
49.	North Carolina State	Raleigh, North Carolina	1.95-2.47
53.	University of N. Mexico	Albuquerque, New Mexico	1.82-2.01
54.	Memphis State	Memphis, Tennessee	1.56-1.99
64.	University of Tennessee	Knoxville, Tennessee	1.37-1.85
67.	Texas Tech	Lubbock, Texas	1.85-2.36

SKILLED LABOR

Minimum - over $2.00 under $3.00

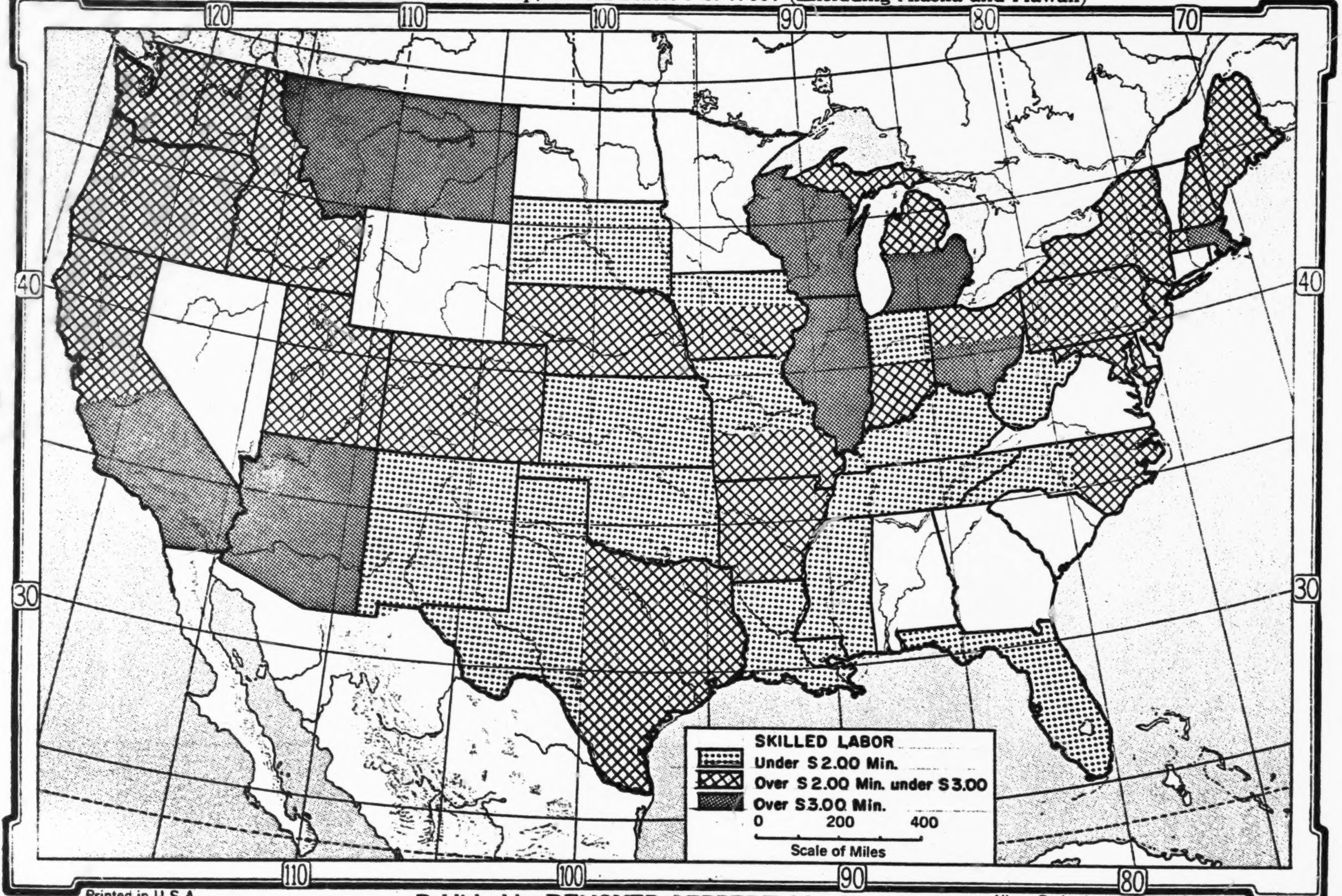
2.	Grand Valley State	Allendale, Michigan	2.66
3.	A		2.40-3.07
4.	Nebraska College of Med.	Omaha, Nebraska	2.47-3.10
5.	University of California	San Diego, California	2.64-3.70
9.	Goucher College	Towson, Maryland	2.00-2.14
10.	College of Southern Utah	Cedar City, Utah	2.50-2.87
11.	C		2.89-3.54
12.	Colorado College	Colorado Springs, Colo.	2.39-2.93
13.	D		2.60-3.05
15.	F		2.83
18.	Depauw University	Greencastle, Indiana	2.13-2.49
20.	Wake Forest	Winston-Salem, N. Carolina	2.01-2.43
24.	H		2.31-2.99
25.	I		2.17-2.43
26.	J		2.72-3.62
27.	Princeton University	Princeton, New Jersey	3.02
30.	K		2.40-2.62
31.	Southeast Missouri State	Cape Girardeau, Missouri	2.49-3.40
32.	Wittenburg University	Springfield, Ohio	2.53-3.04
38.	Omaha University	Omaha, Nebraska	2.21-2.55
39.	University of Idaho	Moscow, Idaho	2.14-3.05
40.	Adelphi University	Garden City, New York	2.08-2.79
42.	University of Maine	Orono, Maine	2.28-2.60
47.	N.		2.64-2.89
48.	University of Arkansas	Fayetteville, Arkansas	2.41-3.07
50.	Texas A & M	College Station, Texas	2.13-2.67
51.	University of Massachusetts	Amherst, Massachusetts	2.18-2.76
55.	Ball State	Muncie, Indiana	2.25-2.30
56.	Washington State University	Pullman, Washington	2.34-3.41
57.	University of Alberta	Canada	2.15-2.59
60.	P		2.89-3.17
61.	Colorado State College	Ft. Collins, Colorado	2.28-3.09
63.	University of S. California	Los Angeles, California	2.97-3.34
65.	University of Houston	Houston, Texas	2.14-2.68
68.	Q		2.45-3.28
69.	University of Iowa	Iowa City, Iowa	2.76
71.	R		2.32-2.43
72.	University of Utah	Salt Lake City, Utah	2.20-2.85
73.	University of Brit. Columbia	Vancover, British Columbia	2.65-2.69
75.	S		2.56-2.84
77.	Missouri University	Columbia, Missouri	2.19-2.46
78.	Indiana University	Bloomington, Indiana	2.29-2.83
82.	V		2.20-3.13

SKILLED LABOR

Minimum - over $3.00

35.	University of California	Davis, California	4.14
37.	University of Montana	Missoula, Montana	3.88
43.	Fresno State College	Fresno, California	3.05-3.52
45.	L		3.28
46.	M		3.15
52.	San Fernando Valley State	Northridge, California	3.05-3.52
58.	O		4.30-4.87
59.	Stanford University	Palo Alto, California	3.26-3.44
62.	Queens College	Flushing, New.York	4.08
66.	Arizona State	Tempe, Arizona	3.00-3.20
70.	Harvard University	Cambridge, New Jersey	3.08
74.	University of Cincinnati	Cincinnati, Ohio	3.82
76.	Wayne State	Detroit, Michigan	4.10
79.	University of California	Los Angeles, California	4.52-5.09
80.	T		3.83
81.	U		5.23-6.19

Cartocraft Desk Outline Map, United States No. 17001 (Excluding Alaska and Hawaii)


120
110
100
90
80
70
40
30
SKILLED LABOR
▤ Under $2.00 Min.
▦ Over $2.00 Min. under $3.00
▩ Over $3.00 Min.
0 200 400
Scale of Miles

Printed in U.S.A.

Published by DENOYER-GEPPERT CO., Chicago

Albers Projection

Copyright

UNSKILLED LABOR

Minimum - $1.50 or under

1.	Southwest Medical	Dallas, Texas	1.14-1.45
3.	A		1.31-1.67
4.	Nebraska College of Medicine	Omaha, Nebraska	1.45-1.85
6.	B		1.15-1.44
7.	Iowa Wesleyan	Mt. Pleasant, Iowa	1.25-1.50
8.	William Jewell	Liberty, Missouri	1.14-1.36
9.	Goucher	Towson, Maryland	1.15-1.30
10.	College of Southern Utah	Cedar City, Utah	.80-1.50
13.	D		1.10-1.30
14.	E		1.14-1.42
15.	F		1.44-2.08
16.	George Peabody	Nashville, Tennessee	1.00-1.35
17.	Evansville University	Evansville, Indiana	1.00-1.25
19.	G		.90-1.34
20.	Wake Forest	Winston-Salem, N. Carolina	1.05-1.39
21.	University of Windsor	Windsor, Ontario	1.45-1.68
22.	Washburn University	Topeka, Kansas	1.25-2.12
23.	Pan American	Edinburg, Texas	.75-1.00
25.	I		1.40-2.00
28.	Texas Southern	Houston, Texas	1.15-1.44
29.	University of S. Florida	Tampa, Florida	1.44-1.59
32.	Wittenburg	Springfield, Ohio	1.25-2.15
33.	University of Mississippi	University, Mississippi	.80-1.10
34.	University of Louisville	Louisville, Kentucky	1.39-1.60
36.	Wichita State University	Wichita, Kansas	1.19-1.67
41.	Southern Methodist	Dallas, Texas	1.25-1.85
42.	University of Maine	Orono, Maine	1.35-1.84
44.	Tulane University	New Orleans, Louisiana	1.27-1.62
48.	University of Arkansas	Fayetteville, Arkansas	1.28-1.63
49.	North Carolina State	Raleigh, North Carolina	1.13-1.42
50.	Texas A & M	College Station, Texas	1.01-1.35
53.	University of New Mexico	Albuquerque, New Mexico	1.25-1.71
54.	Memphis State	Memphis, Tennessee	.99-1.08
64.	University of Tennessee	Knoxville, Tennessee	1.02-1.28
65.	University of Houston	Houston, Texas	1.14-1.62
67.	Texas Tech	Lubbock, Texas	1.31-1.68
75.	S		1.10-2.00
77.	Missouri University	Columbia, Missouri	1.50-1.70

UNSKILLED LABOR

Minimum - over $1.50 under $2.00

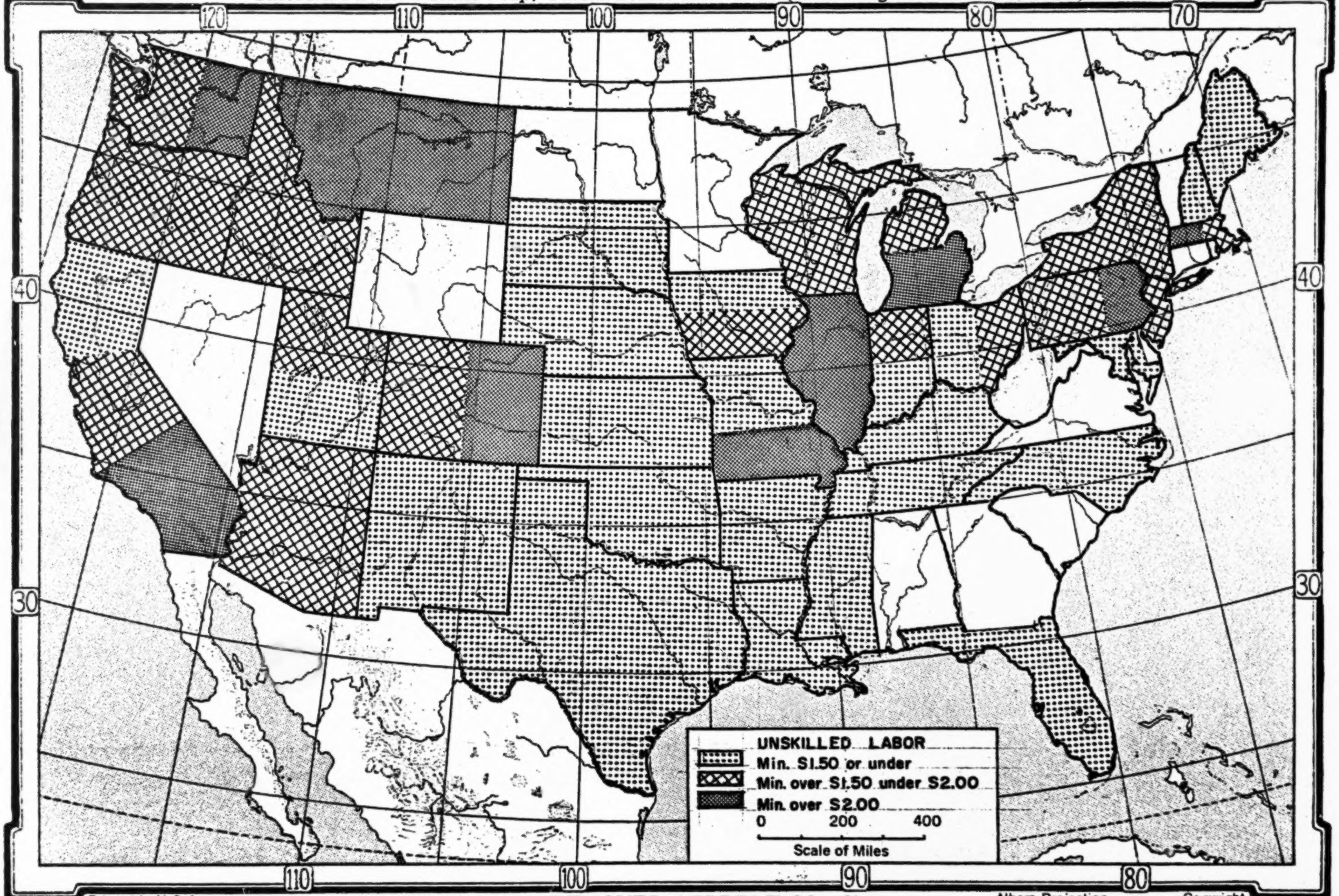
2.	Grand Valley State	Allendale, Michigan	0.00-2.00
12.	Colorado College	Colorado Springs, Colorado	1.73-2.31
18.	Depauw University	Greencastle, Indiana	1.70-2.19
24.	H		1.81-2.39
26.	J		1.88-3.12
27.	Princeton University	Princeton, New Jersey	1.98
30.	K		1.72-1.92
39.	University of Idaho	Moscow, Idaho	1.70
40.	Adelphi University	Garden City, New York	1.75-2.12
51.	University of Massachusetts	Amherst, Massachusetts	1.60-2.01
55.	Ball State	Muncie, Indiana	1.97-2.12
57.	University of Alberta	Edmonton, Alberta	1.70-2.13
60.	P		1.88-2.54
63.	University of S. California	Los Angeles, California	1.99-2.33
66.	Arizona State	Tempe, Arizona	1.65-2.30
68.	Q		1.75-2.70
69.	University of Iowa	Iowa City, Iowa	1.81-2.06
71.	R		1.65-1.80
72.	University of Utah	Salt Lake City, Utah	1.73-2.21
73.	University of British Columbia	Vancouver, British Columbia	1.96-1.99
74.	University of Cincinnatti	Cincinnatti, Ohio	1.81-1.99
78.	Indiana University	Bloomington, Indiana	1.58-1.91
80.	T		1.56-2.32
82.	V		1.82-2.39

UNSKILLED LABOR

Minimum - over $2.00

5.	University of Cal., San Diego	San Diego, California	2.16-2.63
11.	C		2.05-2.55
31.	Southeast Missouri State	Cape Girardeau, Missouri	2.16-2.47
35.	University of Cal., Davis	Davis, California	2.19-2.67
37.	University of Montana	Missoula, Montana	2.90
43.	Fresno State College	Fresno, California	2.27-2.50
45.	L		2.31-2.68
46.	M		2.32
47.	N		2.14-2.38
52.	San Fernando Valley State	San Fernando, California	2.27-2.50
56.	Washington State	Pullman, Washington	2.22-2.59
58.	O		3.47-3.75
59.	Stanford University	Palo Alto, California	2.30-2.41
61.	Colorado State	Ft. Collins, Colorado	2.09-2.94
62.	Queens College	Flushing, New York	2.58-2.66
70.	Harvard University	Cambridge, Massachusetts	2.17
76.	Wayne State	Detroit, Michigan	2.43
79.	University of Cal., L.A.	Los Angeles, California	3.11-3.42
81.	U		3.84-4.52

Cartocraft Desk Outline Map, United States No. 17001 (Excluding Alaska and Hawaii)


120
110
100
90
80
70
40
30
UNSKILLED LABOR
▨ Min. $1.50 or under
▨ Min. over $1.50 under $2.00
▨ Min. over $2.00
0 200 400
Scale of Miles

Printed in U.S.A.

Published by DENOYER-GEPPERT CO., Chicago

Albers Projection

Copyright

JANITORIAL LABOR

Minimum - under $1.00

7.	Iowa Wesleyan	Mt. Pleasant, Iowa	1.00-1.38
14.	G		.90-1.39
16.	George Peabody	Nashville, Tennessee	1.00-1.35
33.	University of Mississippi	University, Mississippi	.80-1.10
50.	Texas A & M	College Station, Texas	.82-1.49
54.	Memphis State	Memphis, Tennessee	.99-1.19

Minimum - over $1.00 under $1.25

1.	Southwest Medical	Dallas, Texas	1.03-1.66
6.	B		1.15-1.44
8.	William Jewell	Liberty, Missouri	1.22-1.31
9.	Goucher College	Towson, Maryland	1.15-1.30
20.	Wake Forest	Winston-Salem, N. Carolina	1.10-1.43
22.	Washburn University	Topeka, Kansas	1.25-1.86
23.	Pan American College	Edinburg, Texas	1.07-1.21
28.	Texas Southern	Houston, Texas	1.15-1.44
34.	University of Louisville	Louisville, Kentucky	1.10-1.45
36.	Wichita State University	Wichita, Kansas	1.09-1.52
41.	Southern Methodist	Dallas, Texas	1.20-1.25
44.	Tulane University	New Orleans, Louisiana	1.04-1.33
49.	North Carolina State	Raleigh, North Carolina	1.18-1.53
53.	University of N. Mexico	Albuquerque, New Mexico	1.25-1.59
64.	University of Tennessee	Knoxville, Tennessee	1.02-1.42
65.	University of Houston	Houston, Texas	1.22-1.68
67.	Texas Tech	Lubbock, Texas	1.14-1.42

JANITORIAL LABOR

Minimum - $1.25 through $1.75

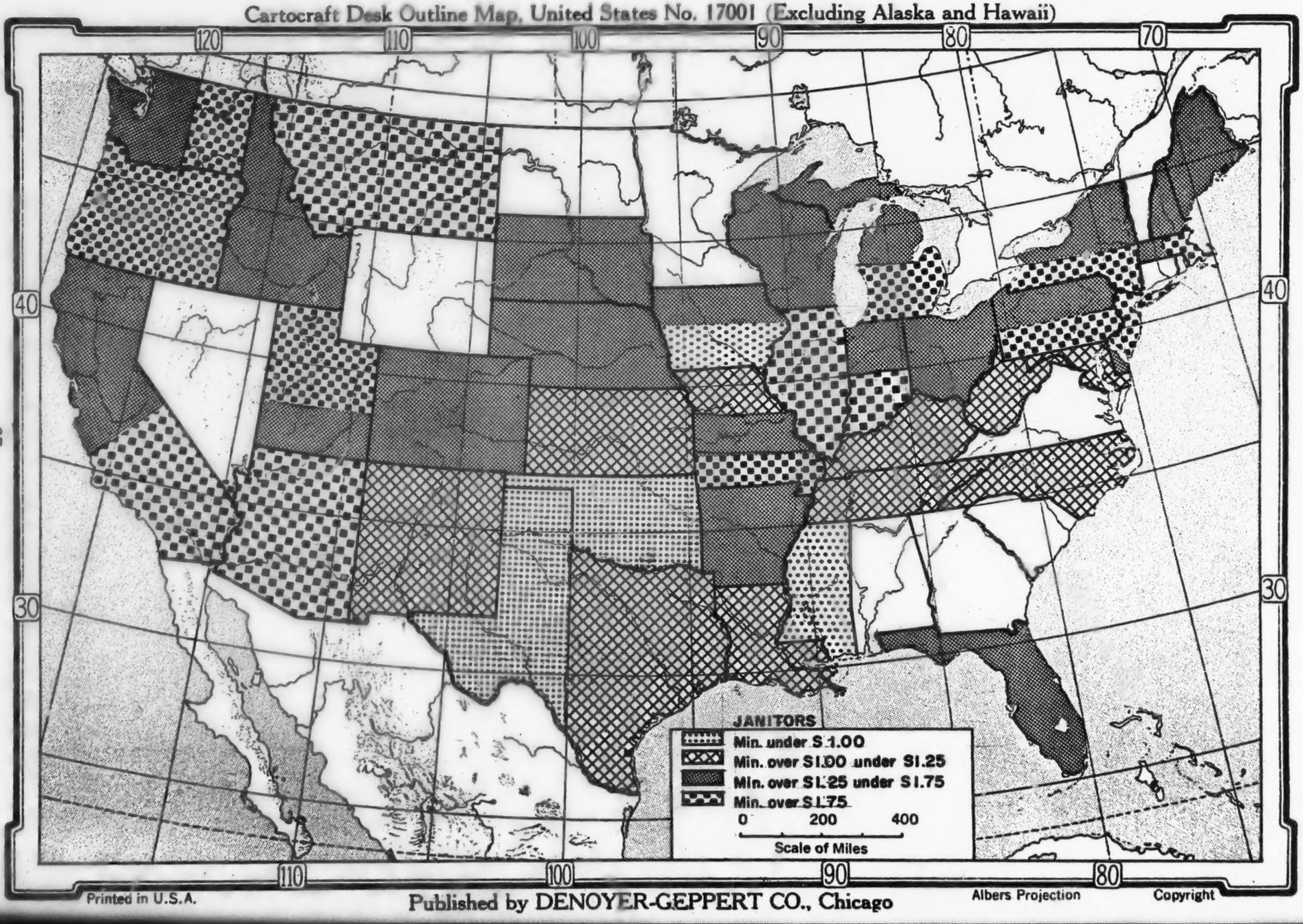
2.	Grand Valley State	Allendale, Michigan	2.10
4.	Nebraska Medical College	Omaha, Nebraska	1.47-1.75
12.	Colorado College	Colorado Springs, Colorado	1.73-2.31
14.	E		1.42-2.27
15.	F		1.56-2.22
17.	Evansville College	Evansville, Indiana	1.65-1.90
21.	University of Windsor	Windsor, Ontario	1.58
25.	I		1.42-1.97
29.	University of S. Florida	Tampa, Florida	1.30-2.36
30.	K		1.72-1.92
32.	Wittenburg, University	Springfield, Ohio	1.50-2.30
38.	Omaha University	Omaha, Nebraska	1.73-2.08
39.	University of Idaho	Moscow, Idaho	1.70-1.76
40.	Adelphi University	Garden City, New York	1.75-2.12
42.	University of Maine	Orono, Maine	1.45-2.00
47.	N		1.50-1.74
48.	University of Arkansas	Fayetteville, Arkansas	1.28-1.63
51.	University of Massachusetts	Amherst, Massachusetts	1.74-2.20
57.	University of Alberta	Edmonton, Alberta	1.56-1.88
61.	Colorado State University	Ft. Collins, Colorado	1.48-1.89
63.	University of S. California	Los Angeles, California	1.73-1.99
68.	Q		1.56-2.58
69.	University of Iowa	Iowa City, Iowa	1.62-2.16
71.	R		1.65-1.80
72.	University of Utah	Salt Lake City, Utah	1.71-2.14
74.	University of Cincinnati	Cincinnati, Ohio	1.59-1.81
75.	S		1.70-2.56
77.	Missouri University	Columbia, Missouri	1.36-1.67
78.	Indiana University	Bloomington, Indiana	1.58-1.94
80.	T		1.44-3.03
82.	V		1.60-2.61

JANITORIAL LABOR

Minimum - over $1.75

5.	University of California	San Diego, California	2.06-2.50
10.	College of Southern Utah	Cedar City, Utah	2.40-2.88
11.	C		2.05-2.55
13.	D		1.93-2.33
18.	Depauw University	Green Castle, Indiana	1.85-2.32
24.	H		1.81-2.19
26.	Brooklyn Polytechnic	Brooklyn, New York	1.75-2.88
27.	Princeton University	Princeton, New Jersey	1.84
31.	Southeast Missouri State	Cape Girardeau, Missouri	1.93-2.38
35.	University of California	Davis, California	2.09-2.54
37.	University of Montana	Missoula, Montana	2.31
43.	Fresno State	Fresno, California	1.96-2.38
45.	L		2.24-2.31
46.	M		2.17
52.	San Fernando Valley	Northridge, California	1.96-2.38
55.	Ball State	Muncie, Indiana	1.97-2.12
56.	Washington State	Pullman, Washington	1.99-2.10
58.	O		2.08
59.	Stanford University	Palo Alta, California	2.36-2.47
60.	P		1.88-2.19
62.	Queens College	Flushing, New York	1.80-2.32
66.	Arizona State University	Tempe, Arizona	1.80-2.30
70.	Harvard University	Cambridge, Massachusetts	2.11
73.	University of Brit. Columbia	Vancover, British Columbia	1.94-2.03
76.	Wayne State	Detroit, Michigan	2.48
79.	University of Los Angeles	Los Angeles, California	2.09-2.54
81.	U		2.36-3.17

Cartocraft Desk Outline Map, United States No. 17001 (Excluding Alaska and Hawaii)


120
110
100
90
80
70
40
30
JANITORS
Min. under $1.00
Min. over $1.00 under $1.25
Min. over $1.25 under $1.75
Min. over $1.75
0
200
400
Scale of Miles
Printed in U.S.A.
Published by DENOYER-GEPPERT CO., Chicago
Albers Projection
Copyright

TABULATION
of
SCHOOLS SPENDING MORE OR LESS
than an
ARBITRARILY ESTABLISHED AVERAGE

ADMINISTRATION

The administration costs group will vary within certain limits. The average limits chosen were from 2 cents to 7 cents per square foot per year. The schools falling outside these limits are either providing more or less services than the average. Another possibility is that not all administrative costs as outlined are reported.

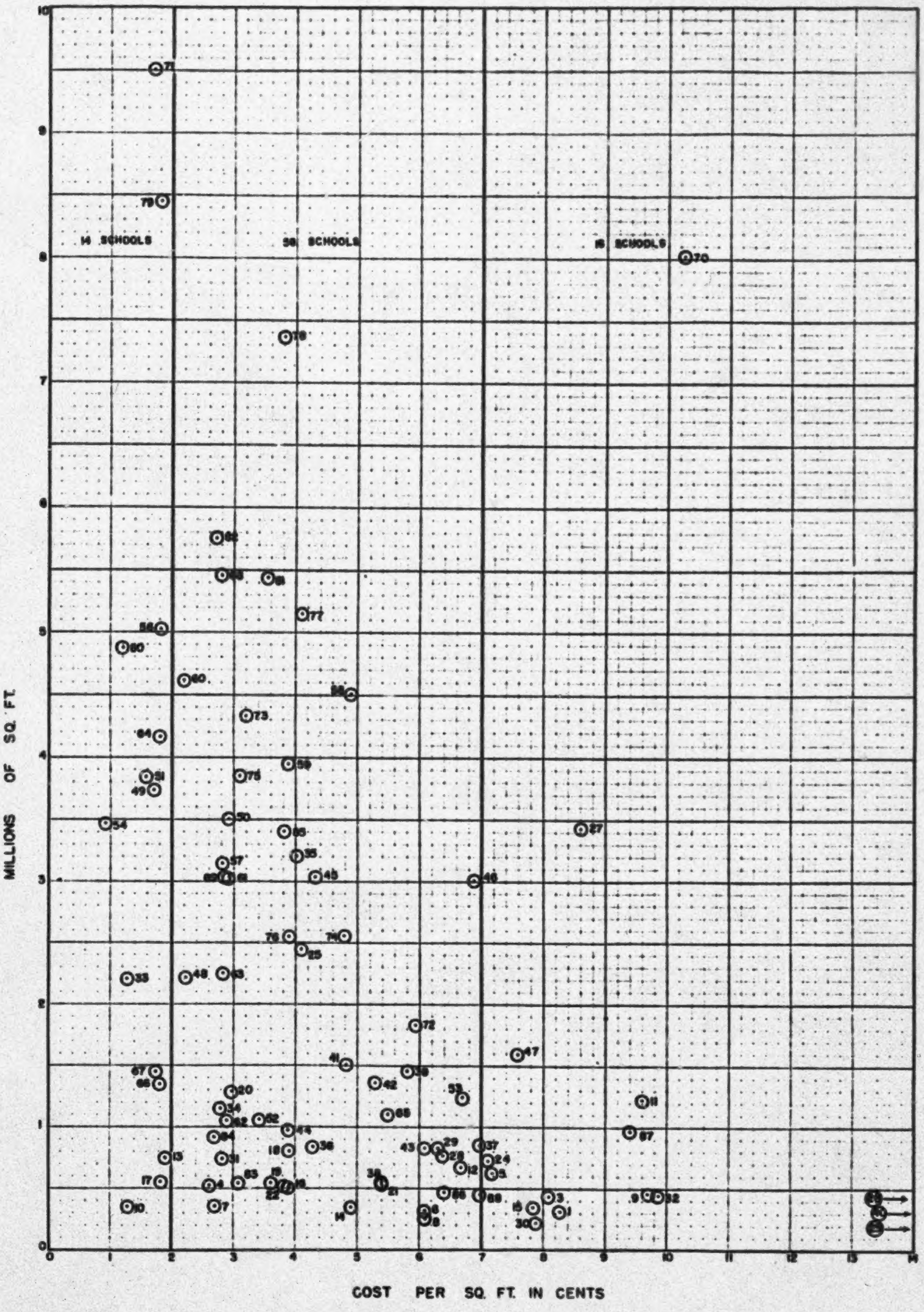
ADMINISTRATIVE COSTS PER SQUARE FOOT

(Schools spending less than 2 cents per square foot per year)

10.	College of Southern Utah	Utah
13.	D	
17.	Evansville College	Indiana
66.	Arizona State University	Arizona
67.	Texas Technology	Texas
33.	University of Mississippi	Mississippi
49.	North Carolina State	North Carolina
51.	University of Massachusetts	Massachusetts
54.	Memphis State University	Tennessee
56.	Washington State University	Washington
64.	University of Tennessee	Tennessee
80.	T	
71.	R	
79.	University of California, Los Angeles	California

(Schools spending more than 7 cents per square foot per year)

1.	Southwest Medical School	Texas
3.	A	
9.	Goucher College	Maryland
11.	C	
15.	F	
23.	Pan American College	Texas
26.	J	
30.	K	
32.	Wittenberg University	Ohio
40.	Adelphi University	New York
5.	University of California, San Diego	California
24.	H	
87.	University of Delaware	Delaware
47.	N	
27.	Princeton University	New Jersey
70.	Harvard University	Massachusetts



ADMINISTRATION

BUILDING MAINTENANCE

The building maintenance costs group vary quite well between the 10 and 30 cents costs per square foot per year.

There is no particular scientific reason for choosing either the 10 cent minimum or the 30 cent maximum, it just looked like a good idea from the way the points grouped. Nor does this mean that this bracket should be accepted by anyone as a standard. It means that 64 schools ranging in an area from a little over 100,000 square feet to over 8,300,000 square feet fall within this bracket.

BUILDING MAINTENANCE COSTS PER SQUARE FOOT

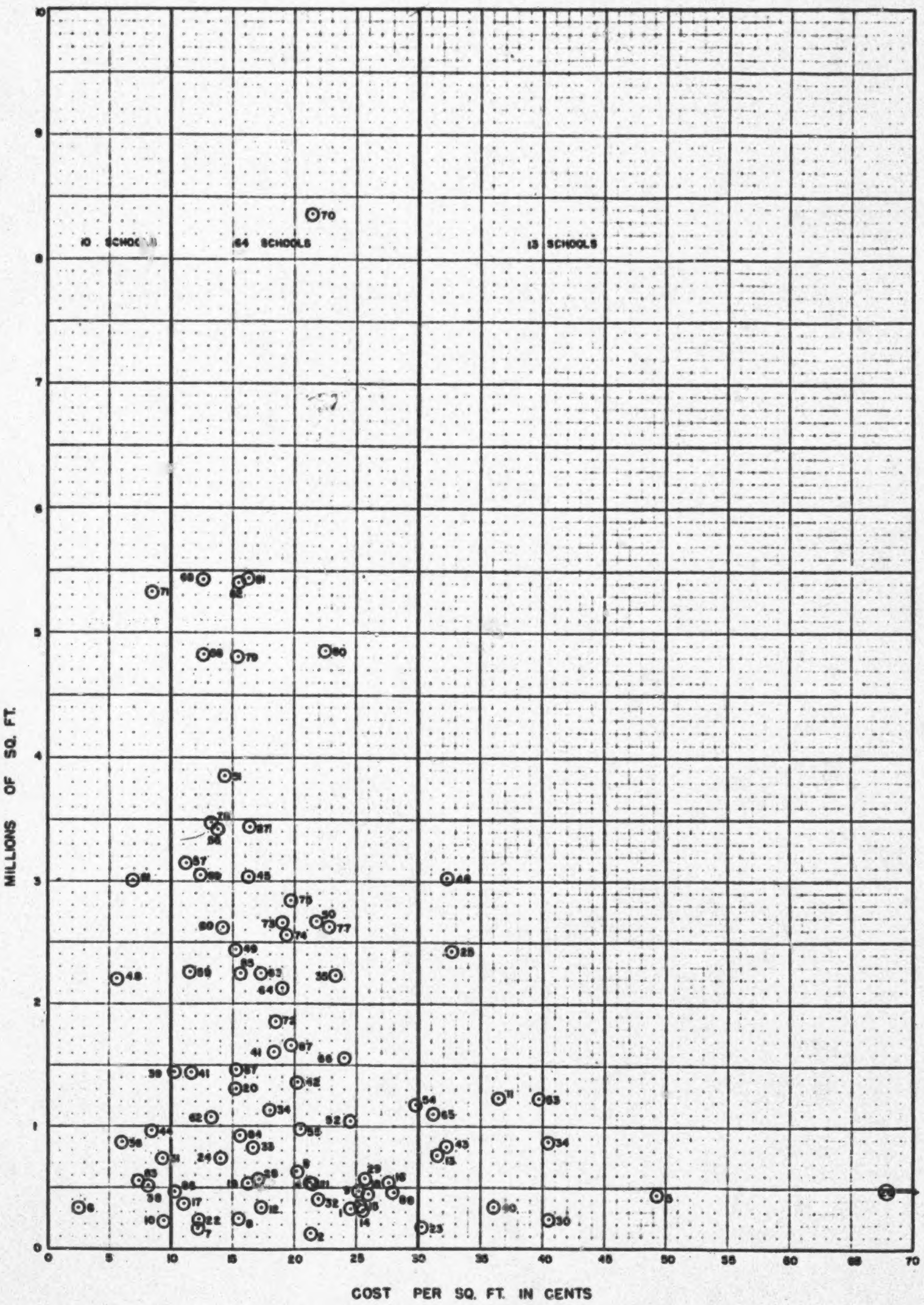
Skilled Labor

(Points less than 10 cents per square foot per year)

6.	B	
36.	Wichita State	Kansas
48.	University of Arkansas	Arkansas
38.	Omaha University	Nebraska
83.	West Virginia Wesleyan	West Virginia
10.	Southern Utah	Utah
31.	Southeast Missouri State	Missouri
44.	Tulane University	Louisiana
61.	Colorado State	Colorado
71.	R	

(Points over 30 cents per square foot per year)

23.	Pan American	Texas
26.	J	
30.	K	
40.	Adelphi University	New York
3.	A	
13.	D	
37.	University of Montana	Montana
43.	Fresno State	California
65.	University of Houston	Texas
11.	C	
53.	University of New Mexico	New Mexico
25.	I	
46.	M	



BUILDING MAINTENANCE

JANITORIAL SERVICES

The custodial costs show quite a variation. However, the majority are quite well grouped between 14 cents per square foot per year and 28 cents per square foot per year.

The bracket chosen was only arbitrary dividing lines into which the majority fell and does not mean that it should be adopted as a standard.

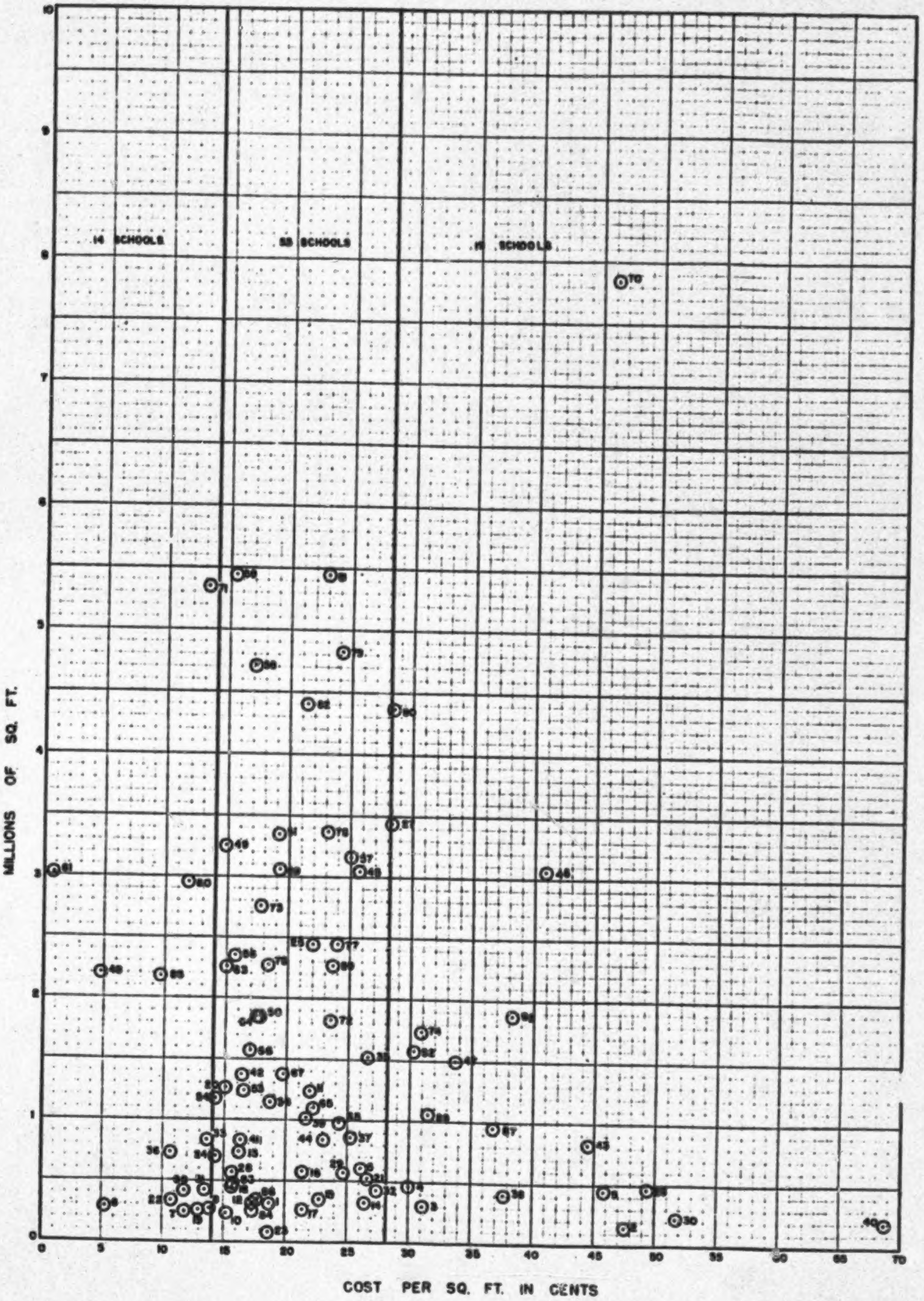
CUSTODIAL COSTS PER SQUARE FOOT

(Schools spending below 14 cents per square foot)

6.	B	
7.	Iowa Wesleyan	Iowa
8.	William Jewell	Missouri
19.	G	
22.	Washburn University	Kansas
31.	Southeast Missouri State	Missouri
33.	University of Mississippi	Mississippi
36.	Wichita State	Kansas
48.	University of Arkansas	Arkansas
60.	P	
61.	Colorado State	Colorado
71.	R	
85.	Kansas State University	Kansas
88.	Mills College	California

(Schools spending above 28 cents per square foot)

2.	Grand Valley State College	Michigan
3.	A	
4.	Nebraska College of Medicine	Nebraska
9.	Goucher College	Maryland
26.	J	
27.	Princeton University	New Jersey
30.	K	
38.	Omaha University	Nebraska
40.	Adelphi University	New York
43.	Fresno State	California
46.	M	
47.	N	
52.	San Fernando Valley	California
62.	Queens College	New York
70.	Harvard University	Massachusetts
74.	University of Cincinnati	Ohio
80.	T	
87.	University of Delaware	Delaware
89.	X	



JANITORIAL SERVICES

TRAFFIC AND SECURITY

Traffic and Security costs group will vary with 22 schools spending less than 2 cents per square foot of building area per year in the low group.

The intermediate group of 42 schools spending between 2 and 5 cents per year for the building area are closely grouped.

The schools spending more than 5 cents are quite widely spread and undoubtedly have special reasons for their larger expenditures due to location or type of institution.

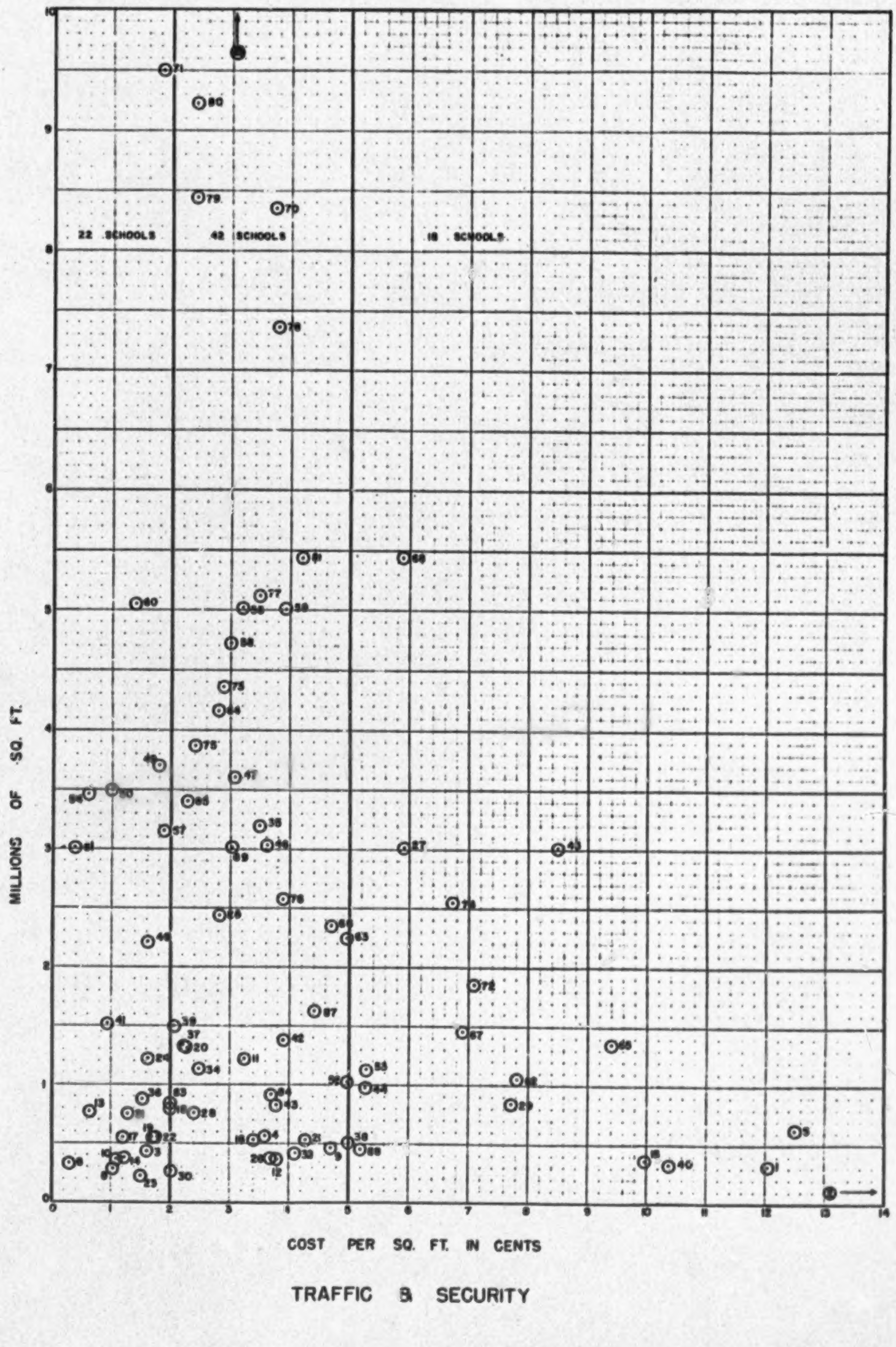
TRAFFIC AND SECURITY COSTS PER SQUARE FOOT

(Schools below 2 cents per square foot per year)

6.	B	
8.	William Jewell	Missouri
23.	Pan American	Texas
10.	College of Southern Utah	Utah
14.	E	
3.	A	
19.	G	
22.	Washburn University	Kansas
17.	Evansville University	Indiana
13.	D	
31.	Southeast Missouri State	Missouri
36.	Wichita State	Kansas
24.	H	
41.	Southern Methodist	Texas
48.	University of Arkansas	Arkansas
57.	University of Alberta	Canada
61.	Colorado State	Colorado
49.	North Carolina State	North Carolina
50.	Texas A & M	Texas
54.	Memphis State	Tennessee
60.	P	
71.	R	

(Schools above 5 cents per square foot per year)

1.	Southwest Medical	Texas
2.	Grand Valley State	New York
5.	University of California, San Diego	California
15.	F	
40.	Adelphi University	New York
88.	Mills College	California
38.	Omaha University	Nebraska
29.	University of Southern Florida	Florida
44.	Tulane University	Louisiana
53.	University of New Mexico	New Mexico
62.	Queens College	New York
65.	University of Houston	Texas
67.	Texas Technology	Texas
72.	University of Utah	Utah
74.	University of Cincinnati	Ohio
45.	L	
27.	Princeton University	New Jersey
68.	Q	



TRAFFIC & SECURITY

UTILITIES

The utility costs group very well and I listed the group below 10 cents to see if I could spot any particular location or reason why the costs should be less. The only factors I could think of are warm areas and the proximity of a fuel supply.

The listed higher groups include all medical schools, which seems logical, and most of the rest are in areas where large quantities of air conditioning are used.

There does not seem to be much reason for any basic assumtions.

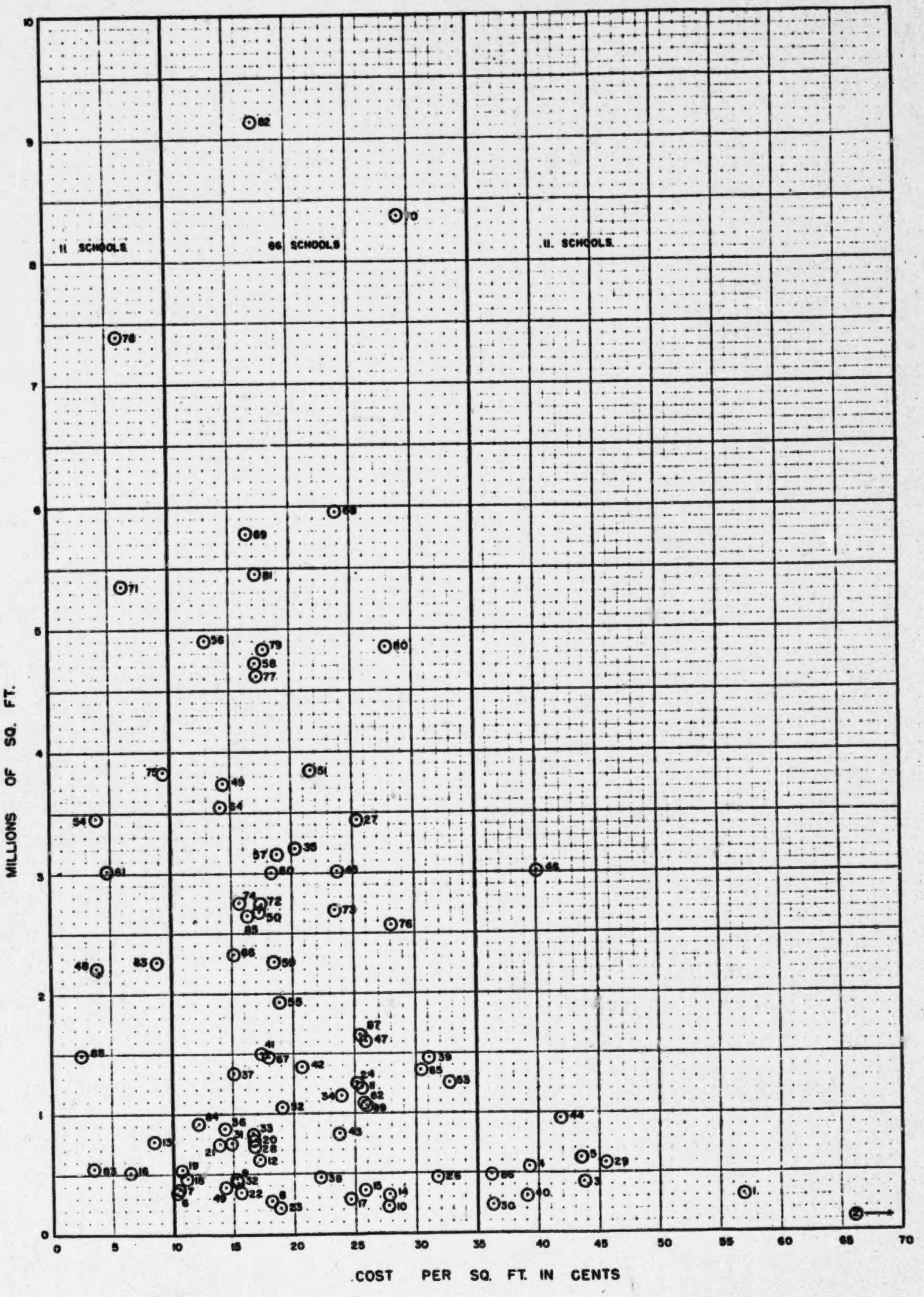
UTILITIES COSTS PER SQUARE FOOT

(Schools spending less than 10¢ per square foot per year)

13.	D	
16.	George Peabody College	Tennessee
83.	West Virginia Wesleyan	West Virginia
88.	Mills College	California
48.	University of Arkansas	Arkansas
63.	University of Southern California	California
61.	Colorado State	Colorado
54.	Memphis State	Tennessee
75.	S	
71.	R	
78.	Indiana University	Indiana

(Schools spending more than 35¢ per square foot per year)

1.	Southwest Medical	Texas
2.	Grand Valley State	New York
3.	A	
4.	Nebraska School of Medicine	Nebraska
5.	University of California, San Diego	California
29.	University of Southern Florida	Florida
30.	K	
40.	Adelphi University	New York
44.	Tulane University	Louisiana
86.	W	
46.	M	


MILLIONS OF SQ. FT.
0
1
2
3
4
5
6
7
8
9
10
11 SCHOOLS
66 SCHOOLS
11. SCHOOLS
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
.COST PER SQ. FT. IN CENTS

UTILITIES

GROUNDS MAINTENANCE

The grounds costs show more variation than the other categories. The costs are more widely scattered.

I thought perhaps I could again determine some reason for this from the area location of the schools. We find Texas institutions in both the low and high cost groups. There is a predominance of California schools in the high cost bracket (more than 10 cents per square foot per year). However, the high cost bracket runs from Canada to Florida and from New York to California, mostly along the perimeter of the United States.

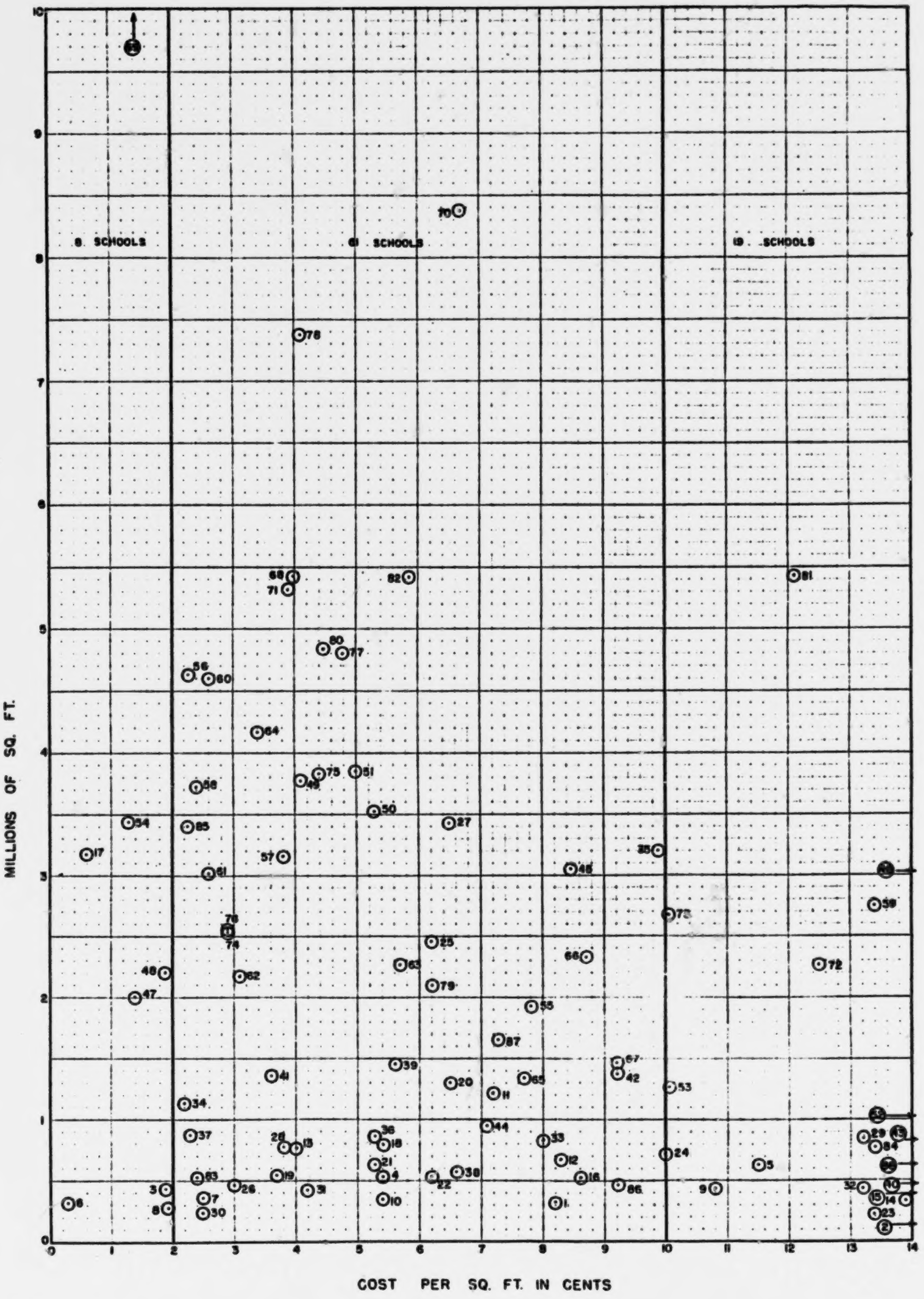
GROUNDS COSTS PER SQUARE FOOT

(Schools spending less than 2 cents per square foot per year)

3.	A	
6.	B	
8.	William Jewell	Missouri
17.	Evansville	Indiana
47.	N	
48.	University of Arkansas	Arkansas
54.	Memphis State	Tennessee
69.	University of Iowa	Iowa

(Schools spending more than 10 cents per square foot per year)

2.	Grand Valley State	New York
5.	University of California, San Diego	California
9.	Goucher College	Maryland
14.	E	
15.	F	
23.	Pan American	Texas
32.	Wittenberg	Ohio
29.	University of Southern Florida	Florida
84.	Swarthmore	Pennsylvania
53.	University of New Mexico	New Mexico
46.	M	
59.	Stanford	California
72.	University of Utah	Utah
73.	University of British Columbia	Canada
81.	V	
88.	Mills College	California
40.	Adelphi University	New York
43.	Fresno State	California
52.	San Fernando Valley	California


8 SCHOOLS
61 SCHOOLS
19 SCHOOLS
MILLIONS OF SQ. FT.
COST PER SQ. FT. IN CENTS
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14

GROUNDS

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

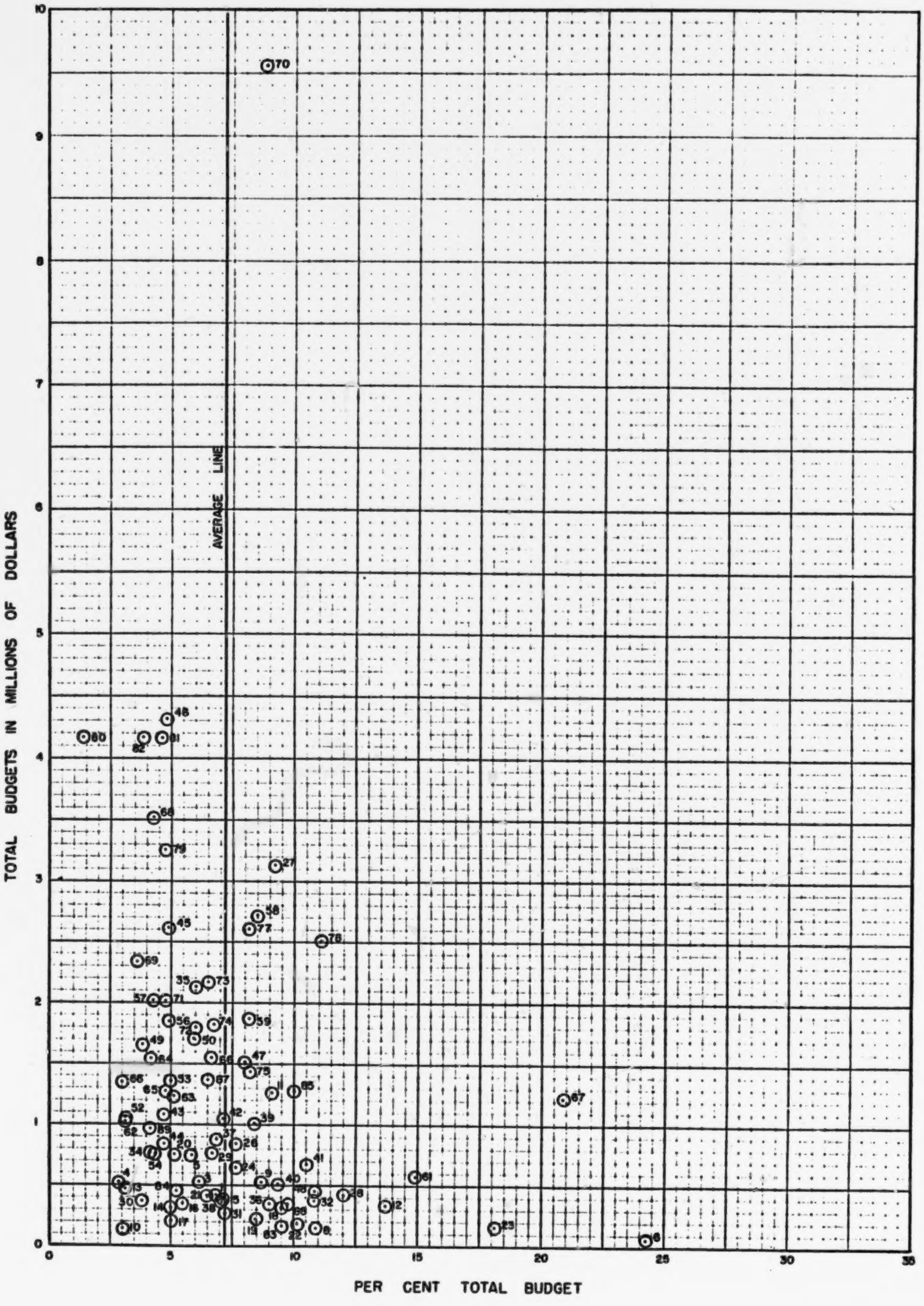
ADMINISTRATION

School No.	Total Reported Budget 6 Categories	Total Administration	% Administration Total Budget
1	401,539	26,868	6.7
2			
3	538,789	34,300	6.3
4	536,037	14,785	2.9
5	751,300	44,637	5.9
6	78,000	19,000	24.3
7		9,408	
8	154,504	16,800	10.9
9	512,550	44,950	8.7
10	143,162	4,363	3.0
11	1,276,000	116,000	9.1
12	325,992	45,180	13.7
13	480,106	15,000	3.1
14	313,656	15,262	5.0
15	390,730	28,082	7.2
16	362,085	19,720	5.5
17	201,710	10,119	5.0
18	328,866	31,366	9.5
19	228,002	19,137	8.4
20	762,664	38,515	5.2
21	429,311	27,831	6.5
22	190,449	19,144	10.1
23	175,630	31,719	18.1
24	654,244	50,422	7.7
25		101,420	
26	842,119	70,000	7.7
27	3,145,000	295,000	9.3
28	413,664	49,543	12.0
29	780,550	52,400	6.7
30	371,947	18,064	4.8
31	283,269	20,731	7.3
32	388,629	41,883	10.8
33		29,722	
34	775,575	32,426	4.2
35	2,124,722	126,759	6.0
36	344,418	31,033	9.0
37	892,451	61,094	6.8
38	387,085	27,485	7.1
39	1,022,670	85,000	8.4
40	507,478	47,500	9.4
41	683,603	72,040	10.5
42	1,049,025	73,700	7.1
43	1,092,158	50,183	4.7
44	841,405	38,315	4.7
45	2,619,092	128,428	4.9

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

ADMINISTRATION

School No.	Total Reported Budget 6 Categories	Total Administration	% Administration Total Budget
46	4,316,000	208,000	4.8
47	1,510,600	120,900	8.0
48	449,282	49,078	10.9
49	1,665,517	63,094	3.8
50	1,711,373	100,660	5.9
51		63,585	
52	1,066,558	34,176	3.2
53	1,363,726	67,891	5.0
54	756,408	32,760	4.4
55			
56	1,848,544	91,174	4.9
57	2,018,833	87,542	4.3
58	2,711,186	229,451	8.5
59	1,874,100	153,700	8.2
60	1,554,723	103,392	6.6
61	597,226	88,710	14.9
62	1,025,104	31,215	3.1
63	1,235,190	62,745	5.1
64	1,548,027	65,967	4.2
65	1,293,837	60,710	4.7
66	1,356,997	41,861	3.0
67	1,220,442	252,815	20.7
68	3,518,292	154,028	4.3
69	2,337,630	83,480	3.6
70	9,599,000	849,000	8.8
71	2,014,200	156,500	4.7
72	1,800,047	107,711	6.0
73	2,174,093	141,361	6.5
74	1,827,797	123,195	6.7
75	1,430,420	118,444	8.3
76		100,288	
77	2,602,725	212,833	8.2
78	2,503,254	277,423	11.1
79	3,261,335	152,396	4.7
80	4,177,724	57,401	1.4
81	4,161,545	192,670	4.6
82	4,177,191	158,593	3.8
83	176,793	16,914	9.5
84	459,258	24,406	5.3
85	1,288,430	129,879	10.0
86		31,731	
87	1,384,014	90,033	6.5
88	345,600	33,500	9.7
89	978,693	41,370	4.2
		Grand Total	586.3
		Average of 81 in % of Budget	7.2



ADMINISTRATION

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

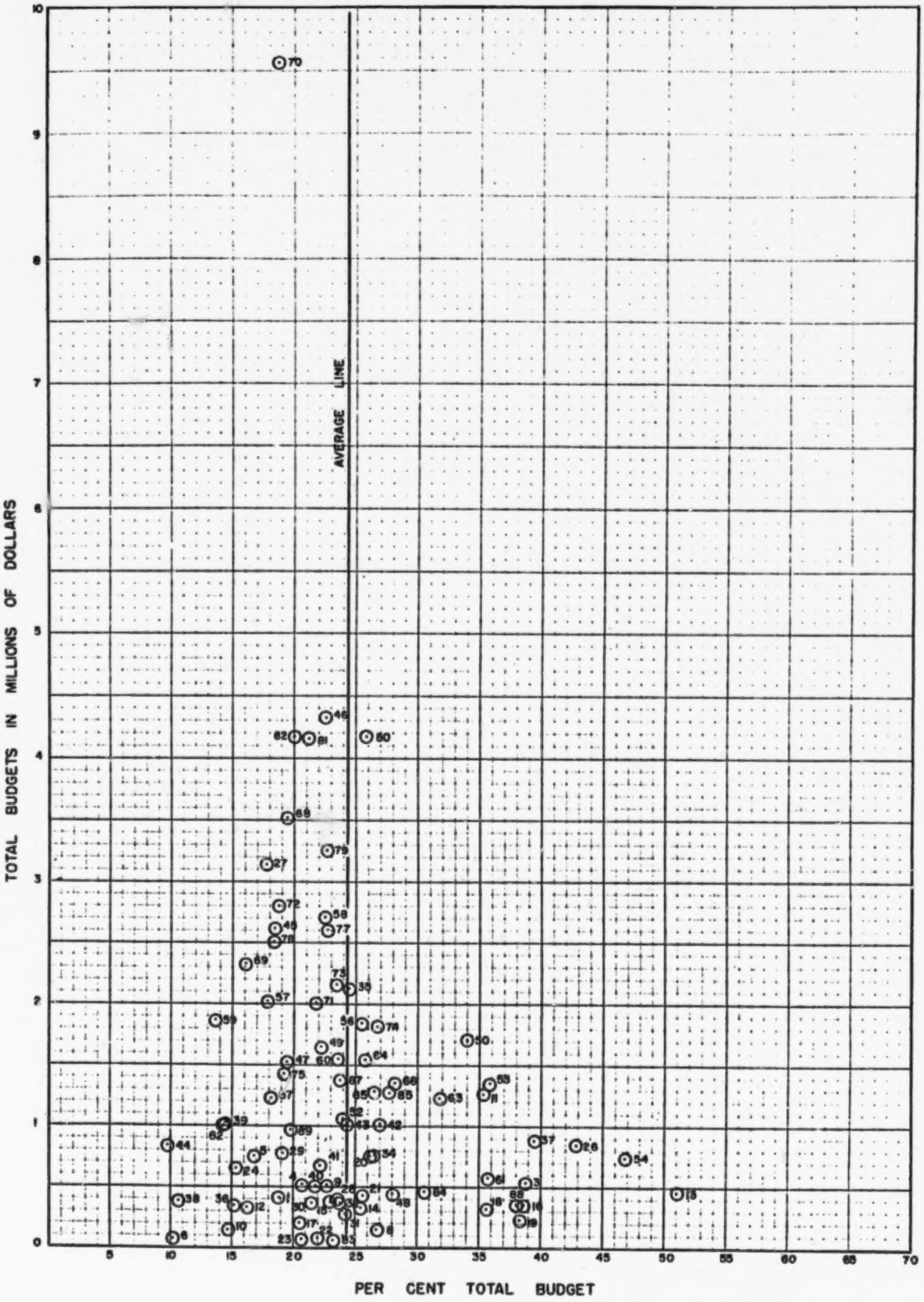
BUILDING MAINTENANCE

School No.	Total Reported Budget 6 Categories	Total Maintenance	% Maintenance Total Budget
1	401,539	75,856	18.9
2		22,000	
3	538,789	209,184	38.9
4	536,037	111,074	20.7
5	751,300	126,476	16.8
6	78,000	8,000	10.2
7		33,109	
8	154,504	41,389	26.8
9	512,550	115,900	22.6
10	143,162	21,006	14.7
11	1,276,000	450,000	35.3
12	325,992	52,750	16.2
13	480,106	244,586	51.0
14	313,656	80,140	25.5
15	390,730	89,713	23.0
16	362,085	140,098	38.6
17	201,710	41,389	20.5
18	328,866	117,000	35.6
19	228,002	87,239	38.3
20	762,664	200,204	26.2
21	429,311	110,700	25.6
22	190,449	42,079	22.0
23	175,630	36,452	20.7
24	654,244	100,000	15.4
25		802,417	
26	842,119	360,891	42.9
27	3,145,000	560,000	17.8
28	413,664	97,244	23.5
29	780,550	149,000	19.1
30	371,947	91,592	21.6
31	283,269	68,655	24.2
32	388,629	92,952	23.8
33		138,703	
34	775,575	205,990	26.5
35	2,124,722	520,137	24.5
36	344,418	52,335	15.2
37	892,451	352,442	39.5
38	387,085	41,196	10.6
39	1,022,670	147,372	14.4
40	507,478	110,983	21.8
41	683,603	151,208	22.1
42	1,049,025	283,700	27.0
43	1,092,158	264,739	24.3
44	841,405	82,404	9.7
45	2,619,092	482,724	18.4

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

BUILDING MAINTENANCE

School No.	Total Reported Budget 6 Categories	Total Maintenance	% Maintenance Total Budget
46	4,316,000	974,000	22.6
47	1,510,600	294,800	19.5
48	449,282	125,757	28.0
49	1,665,517	368,674	22.1
50	1,711,373	582,082	34.0
51		544,530	
52	1,066,558	256,474	24.0
53	1,363,726	488,340	35.8
54	756,408	354,430	46.8
55		204,000	
56	1,848,544	470,190	25.5
57	2,018,883	361,951	17.9
58	2,711,186	607,038	22.5
59	1,874,100	263,400	13.6
60	1,554,723	366,258	23.6
61	597,226	212,886	35.7
62	1,025,104	147,085	14.4
63	1,235,190	392,481	31.8
64	1,548,027	399,049	25.8
65	1,293,837	342,495	26.5
66	1,356,997	381,468	28.1
67	1,220,442	223,119	18.2
68	3,518,292	688,340	19.5
69	2,337,630	375,810	16.1
70	9,599,000	1,797,000	18.8
71	2,014,200	440,100	21.8
72	1,800,047	338,174	18.8
73	2,174,093	510,675	23.4
74	1,827,797	490,248	26.8
75	1,430,420	273,822	19.2
76			
77	2,602,725	592,409	22.7
78	2,503,254	460,232	18.4
79	3,261,335	736,203	22.6
80	4,177,724	1,085,609	25.9
81	4,161,545	883,222	21.2
82	4,177,191	846,629	20.4
83	176,793	40,135	23.2
84	459,258	140,626	30.6
85	1,288,430	356,938	27.8
86		51,851	
87	1,384,014	327,447	23.7
88	345,600	131,100	38.1
89	978,693	194,866	19.9
		Grand Total	1965.7
		Average of 81 in % of Budget	24.3



BUILDING MAINTENANCE

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

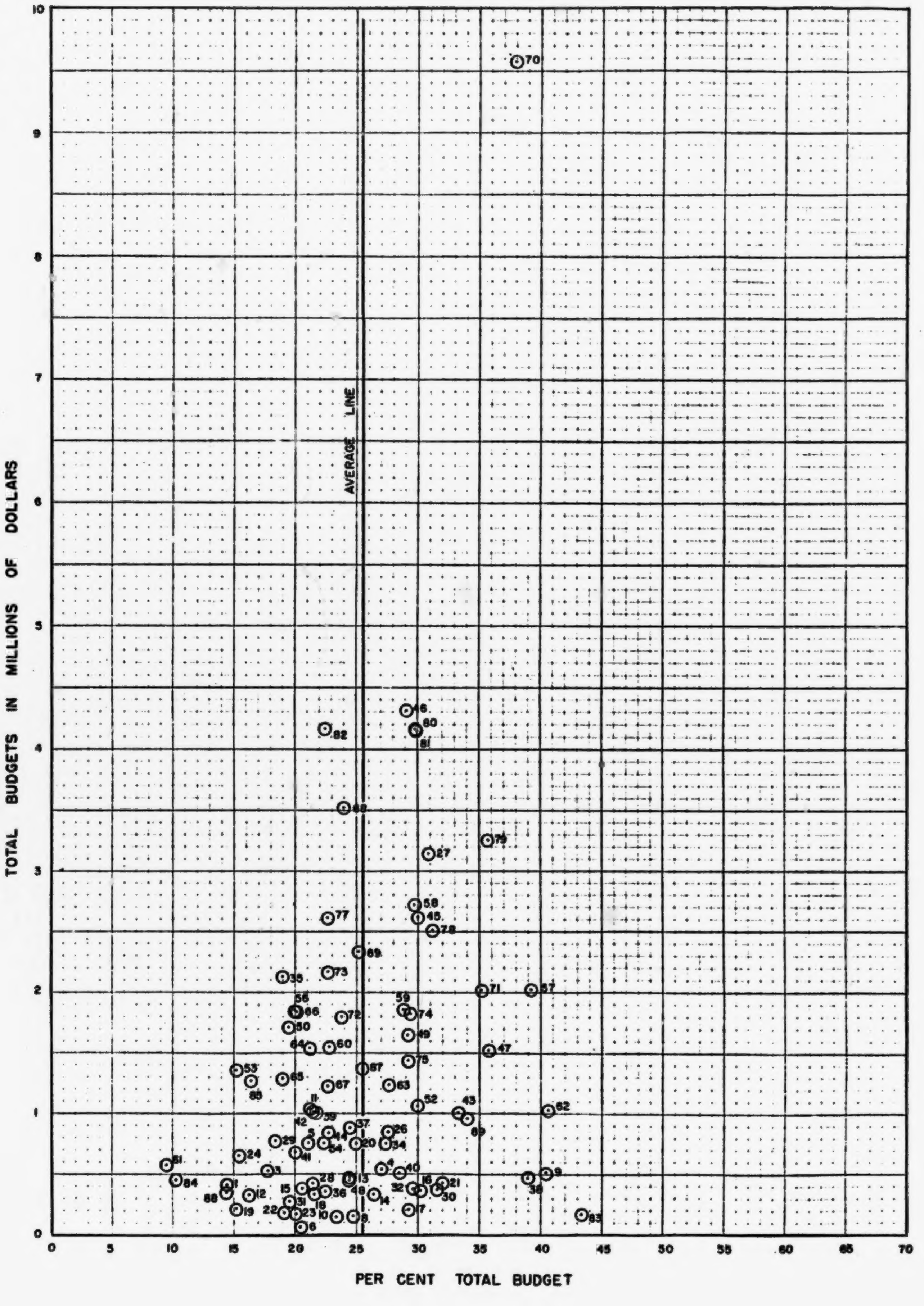
JANITORIAL

School No.	Total Reported Budget 6 Categories	Total Custodial	% Custodial Total Budget
1	401,539	58,000	14.5
2		50,000	
3	538,789	95,937	17.8
4	536,037	145,623	27.1
5	751,300	158,530	21.1
6	78,000	16,000	20.5
7		29,300	
8	154,504	38,443	24.8
9	512,550	207,500	40.4
10	143,162	33,570	23.4
11	1,276,000	271,000	21.2
12	325,992	52,650	16.2
13	480,106	118,455	24.5
14	313,656	82,877	26.4
15	390,730	80,880	20.7
16	362,085	109,308	30.2
17	201,710	58,832	29.2
18	328,866	71,000	21.6
19	228,002	34,722	15.2
20	762,664	190,090	25.0
21	429,311	137,250	32.0
22	190,449	36,511	19.2
23	175,630	35,277	20.1
24	654,244	101,610	15.5
25		538,634	
26	842,119	233,228	27.6
27	3,145,000	972,000	30.9
28	413,664	88,832	21.4
29	780,550	143,000	18.4
30	371,947	117,784	31.7
31	283,269	55,431	19.6
32	388,629	115,699	29.8
33		112,284	
34	775,575	213,643	27.5
35	2,124,722	404,164	19.0
36	344,418	77,545	22.5
37	892,451	218,488	24.5
38	387,085	151,258	39.0
39	1,022,670	211,782	21.7
40	507,478	144,519	28.5
41	683,603	136,710	20.0
42	1,049,025	225,730	21.5
43	1,092,158	363,710	33.2
44	841,405	192,730	22.8
45	2,619,092	785,941	30.0

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

JANITORIAL

School No.	Total Reported Budget 6 Categories	Total Custodial	% Custodial Total Budget
46	4,316,000	1,260,000	29.2
47	1,510,600	540,400	35.8
48	449,282	109,767	24.4
49	1,665,517	485,947	29.2
50	1,711,373	334,566	19.5
51		639,607	
52	1,066,558	320,138	30.0
53	1,363,726	206,068	15.1
54	756,408	169,336	22.3
55		241,520	
56	1,848,544	369,972	20.0
57	2,018,883	792,413	39.2
58	2,711,186	809,036	29.8
59	1,874,100	537,700	28.9
60	1,554,723	353,543	22.8
61	597,226	56,478	9.5
62	1,025,104	416,805	40.7
63	1,235,190	340,482	27.6
64	1,548,027	326,831	21.2
65	1,293,837	245,705	19.0
66	1,356,977	270,882	20.1
67	1,220,442	275,541	22.6
68	3,518,292	842,774	24.0
69	2,337,630	590,510	25.2
70	9,559,000	3,637,000	38.0
71	2,014,200	709,000	35.2
72	1,800,047	429,993	23.9
73	2,174,093	488,238	22.6
74	1,827,797	535,328	29.3
75	1,430,420	417,902	29.2
76			
77	2,602,725	586,525	22.6
78	2,503,254	781,413	31.2
79	3,261,335	1,169,560	35.8
80	4,177,724	1,245,493	29.9
81	4,161,545	1,254,732	30.0
82	4,177,191	941,505	22.5
83	176,793	76,534	43.3
84	459,258	47,302	10.3
85	1,288,430	211,555	16.4
86		64,559	
87	1,384,014	351,817	25.4
88	345,600	50,000	14.4
89	978,693	332,554	34.0
		Grand Total	2046.3
		Average of 81 in % of Budget	25.3



JANITORIAL SERVICE

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

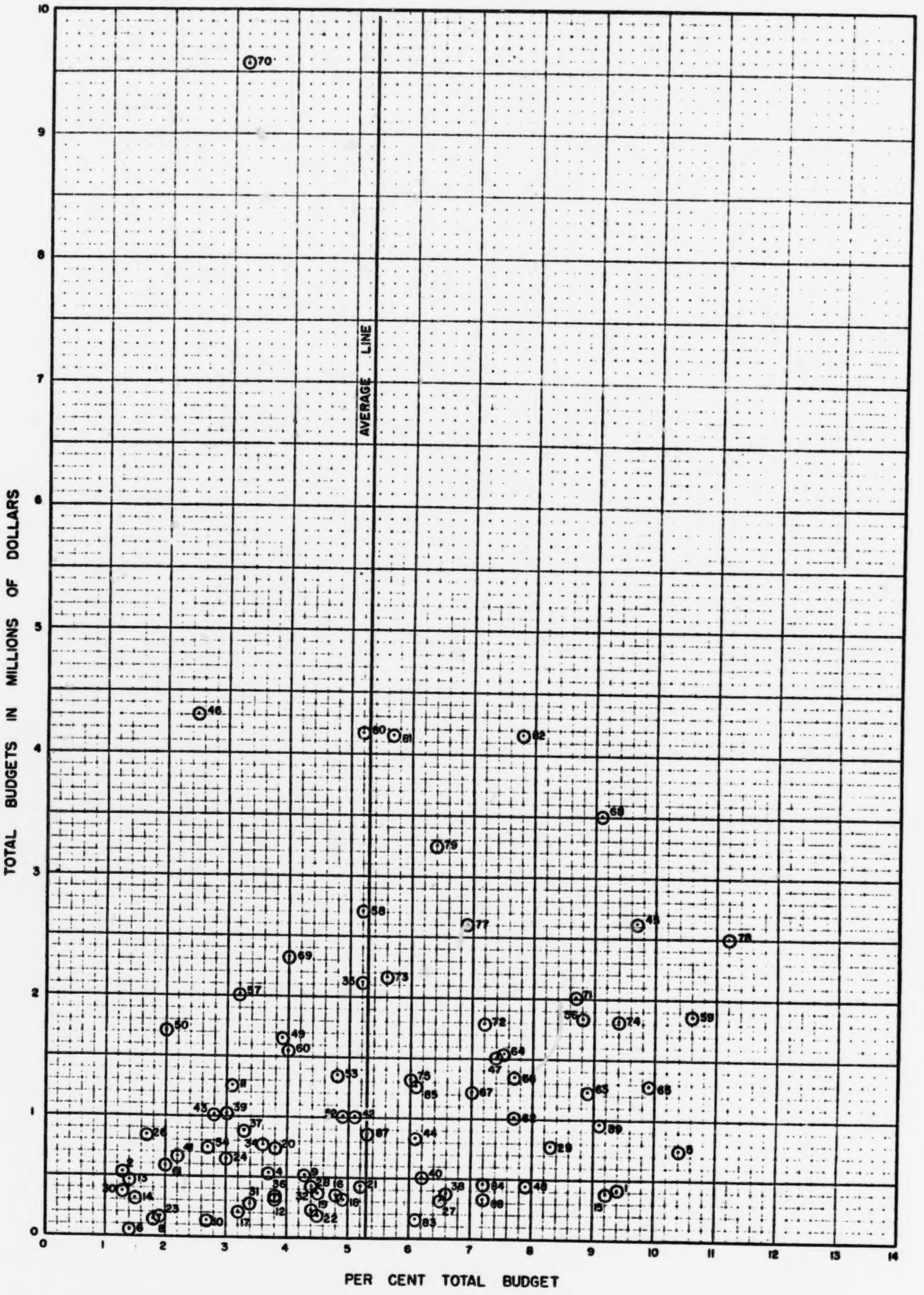
TRAFFIC AND SECURITY

School No.	Total Reported Budget 6 Categories	Total Traffic & Security	% Traffic & Security Total Budget
1	401,539	37,563	9.4
2		17,000	
3	538,789	7,080	1.3
4	536,037	19,890	3.7
5	751,300	77,997	10.4
6	78,000	1,000	1.4
7			
8	154,504	2,800	1.8
9	512,550	21,600	4.3
10	143,162	3,875	2.7
11	1,276,000	40,000	3.1
12	325,992	12,500	3.8
13	480,106	5,000	1.4
14	313,656	4,845	1.5
15	390,730	36,013	9.2
16	362,085	17,390	4.8
17	201,710	6,500	3.2
18	328,866	16,000	4.9
19	228,002	9,484	4.2
20	762,664	29,376	3.8
21	429,311	22,000	5.2
22	190,449	8,671	4.5
23	175,630	3,337	1.9
24	654,244	19,761	3.0
25		64,740	
26	842,119	14,000	1.7
27	3,145,000	204,000	6.5
28	413,664	18,371	4.4
29	780,550	64,950	8.3
30	371,947	4,881	1.3
31	283,269	9,570	3.4
32	388,629	17,368	4.5
33			
34	775,575	27,992	3.6
35	2,124,722	111,028	5.2
36	344,418	13,171	3.8
37	892,451	29,715	3.3
38	387,085	25,635	6.6
39	1,022,670	30,273	3.0
40	507,478	31,600	6.2
41	683,603	14,640	2.2
42	1,049,025	53,400	5.1
43	1,092,158	31,308	2.8
44	841,405	51,120	6.1
45	2,619,092	253,685	9.7

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

TRAFFIC AND SECURITY

School No.	Total Reported Budget 6 Categories	Total Traffic & Security	% Traffic & Security Total Budget
46	4,316,000	107,000	2.5
47	1,510,600	111,500	7.4
48	449,282	35,580	7.9
49	1,665,517	65,055	3.9
50	1,711,373	34,330	2.0
51			
52	1,066,558	52,152	4.9
53	1,363,726	65,293	4.8
54	756,408	20,522	2.7
55			
56	1,848,544	162,061	8.8
57	2,018,883	61,000	3.2
58	2,711,186	140,810	5.2
59	1,874,100	196,700	10.6
60	1,554,723	62,643	4.0
61	597,226	12,200	2.0
62	1,025,104	79,250	7.7
63	1,235,190	110,328	8.9
64	1,548,027	115,594	7.5
65	1,293,837	127,827	9.9
66	1,356,997	103,830	7.7
67	1,220,442	85,347	7.0
68	3,518,292	322,720	9.1
69	2,337,630	91,080	4.0
70	9,599,000	310,000	3.2
71	2,014,200	176,000	8.7
72	1,800,047	129,872	7.2
73	2,174,093	124,437	5.6
74	1,827,797	172,353	9.4
75	1,430,420	86,094	6.0
76		101,034	
77	2,602,725	180,628	6.9
78	2,503,254	277,985	11.1
79	3,261,335	207,662	6.4
80	4,177,724	219,594	5.2
81	4,161,545	231,420	5.7
82	4,177,191	323,290	7.8
83	176,793	11,038	6.1
84	459,258	33,156	7.2
85	1,288,430	78,462	6.1
86			
87	1,384,014	73,476	5.3
88	345,600	25,000	7.2
89	978,693	88,877	9.1
		Grand Total	433.1
		Average of 81 in % of Budget	5.3



TRAFFIC & SECURITY

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

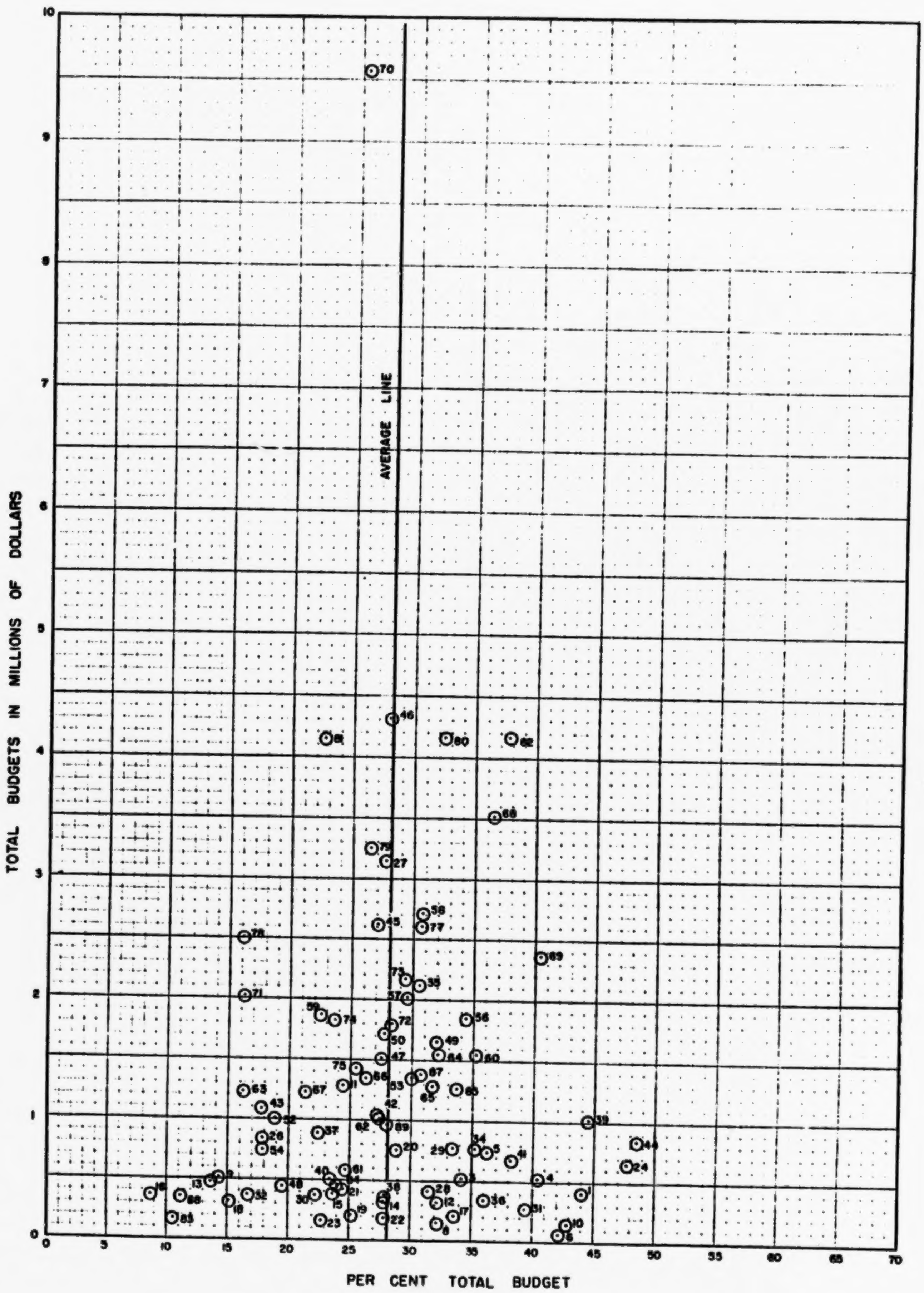
UTILITIES

School No.	Total Reported Budget 6 Categories	Total Utilities	% Utilities Total Budget
1	401,539	176,912	44.0
2		100,000	
3	538,789	184,000	34.2
4	536,037	216,435	40.4
5	751,300	271,588	36.2
6	78,000	33,000	42.2
7		37,556	
8	154,504	49,657	32.2
9	512,550	72,800	14.3
10	143,162	61,324	42.9
11	1,276,000	311,000	24.4
12	325,992	106,572	32.8
13	480,106	65,850	13.6
14	313,656	87,222	27.8
15	390,730	92,118	23.6
16	362,085	31,801	8.8
17	201,710	67,748	33.6
18	328,866	50,000	15.2
19	228,002	57,663	25.3
20	762,664	220,429	28.8
21	429,311	104,480	24.4
22	190,449	52,666	27.7
23	175,630	39,807	22.7
24	654,244	312,167	47.7
25			
26	842,119	150,000	17.8
27	3,145,000	870,000	27.7
28	413,664	129,753	31.4
29	780,550	261,050	33.4
30	371,947	82,418	22.2
31	283,269	111,440	39.4
32	388,629	64,962	16.7
33		137,052	
34	775,575	272,454	35.2
35	2,124,722	647,584	30.5
36	344,418	123,852	36.0
37	892,451	199,838	22.4
38	387,085	107,921	27.9
39	1,022,670	455,772	44.5
40	507,478	118,836	23.4
41	683,603	261,000	38.2
42	1,049,025	285,560	27.2
43	1,092,158	193,865	17.8
44	841,405	408,208	48.5
45	2,619,092	710,008	27.1

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

UTILITIES

School No.	Total Reported Budget 6 Categories	Total Utilities	% Utilities Total Budget
46	4,316,000	1,211,000	28.0
47	1,510,600	415,500	27.5
48	449,282	87,245	19.5
49	1,665,517	532,210	32.0
50	1,711,373	475,180	27.8
51		829,537	
52	1,066,558	201,121	18.9
53	1,363,726	409,892	30.0
54	756,408	135,000	17.9
55		365,241	
56	1,848,544	636,330	34.4
57	2,018,883	595,628	29.5
58	2,711,186	835,165	30.8
59	1,874,100	418,800	22.5
60	1,554,723	546,718	35.2
61	597,226	147,750	24.7
62	1,025,104	282,099	27.4
63	1,235,190	200,052	16.2
64	1,548,027	498,368	32.1
65	1,293,837	412,185	31.8
66	1,356,997	356,676	26.2
67	1,220,442	260,801	21.3
68	3,518,292	1,294,187	36.5
69	2,337,630	948,100	40.5
70	9,599,000	2,446,000	25.5
71	2,014,200	326,000	16.2
72	1,800,047	509,113	28.3
73	2,174,093	638,294	29.4
74	1,827,797	432,599	23.7
75	1,430,420	365,331	25.5
76		724,315	
77	2,602,725	795,547	30.6
78	2,503,254	403,473	16.1
79	3,261,335	865,514	26.5
80	4,177,724	1,352,513	32.4
81	4,161,545	938,946	22.6
82	4,177,191	1,587,485	37.8
83	176,793	19,036	10.6
84	459,258	110,017	24.0
85	1,288,430	431,926	33.6
86		177,762	
87	1,384,014	419,454	30.7
88	345,600	38,500	11.1
89	978,693	274,332	28.0
		Grand Total	2273.4
		Average of 81 in % of Budget	28.1


TOTAL BUDGETS IN MILLIONS OF DOLLARS
PER CENT TOTAL BUDGET
AVERAGE LINE
10
9
8
7
6
5
4
3
2
1
0
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
70
46
81
80
82
68
79
27
58
45
77
78
69
73
35
71
57
59
74
72
56
50
49
47
64
60
75
66
87
11
63
67
53
65
85
43
42
52
62
89
39
26
37
20
29
34
5
44
54
41
24
40
61
9
64
38
28
3
4
13
48
1
16
88
21
30
32
15
18
14
12
36
31
19
10
83
23
22
17
8
6

UTILITIES

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

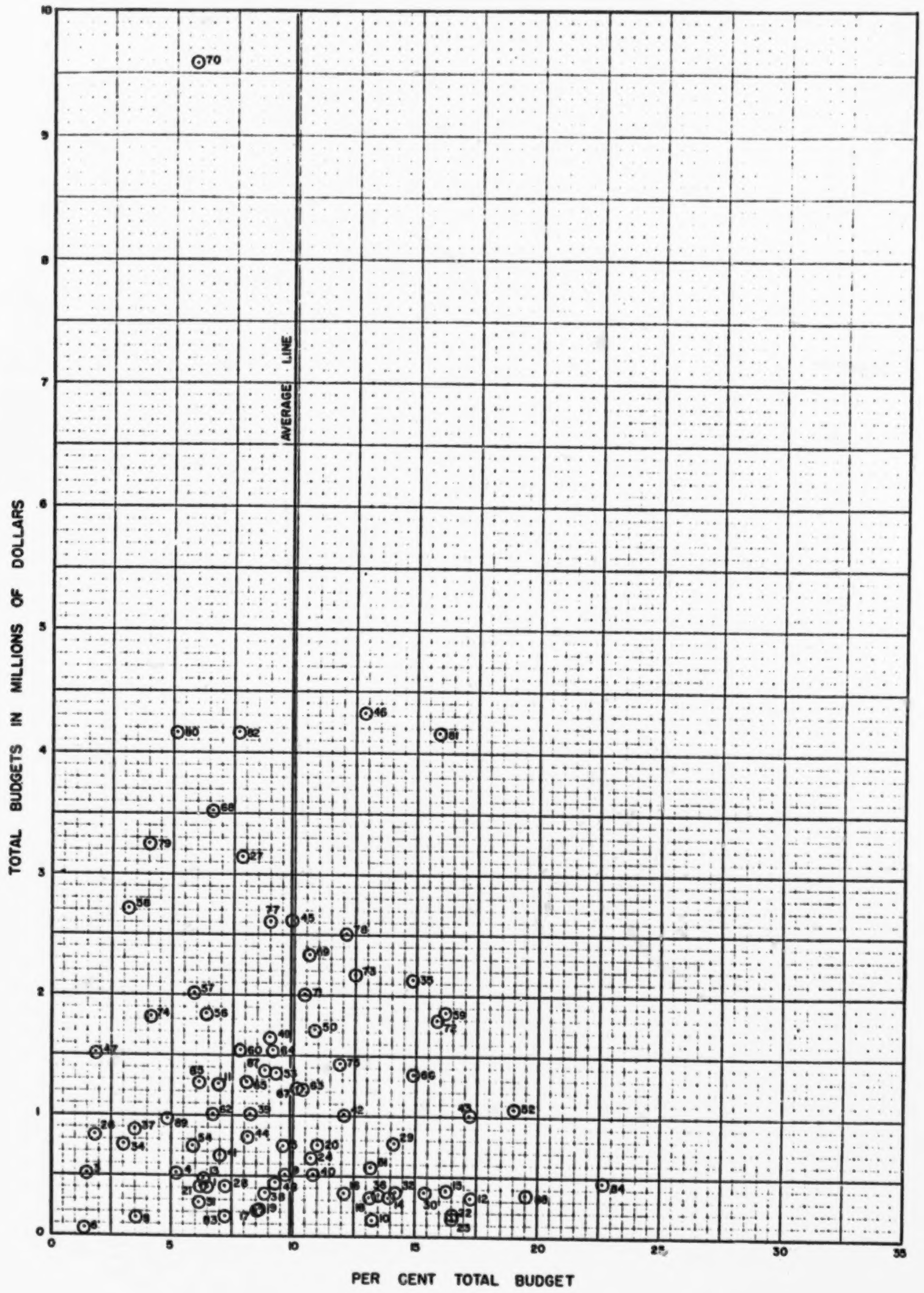
GROUNDS

School No.	Total Reported Budget 6 Categories	Total Grounds	% Grounds Total Budget
1	401,539	26,340	6.5
2		20,000	
3	538,789	8,288	1.5
4	536,037	28,230	5.3
5	751,300	72,072	9.6
6	78,000	1,000	1.4
7		8,855	
8	154,504	5,415	3.5
9	512,550	49,800	9.7
10	143,162	19,024	13.3
11	1,276,000	88,000	6.9
12	325,992	56,340	17.3
13	480,106	31,215	6.4
14	313,656	43,310	13.8
15	390,730	63,924	16.3
16	362,085	43,768	12.1
17	201,710	17,122	8.5
18	328,866	43,500	13.2
19	228,002	19,757	8.6
20	762,664	84,050	11.0
21	429,311	27,050	6.3
22	190,449	31,378	16.5
23	175,630	29,038	16.5
24	654,244	70,284	10.7
25		151,805	
26	842,119	14,000	1.7
27	3,145,000	244,000	7.8
28	413,664	29,921	7.3
29	780,550	110,150	14.1
30	371,947	57,208	15.4
31	283,269	17,442	6.1
32	388,629	55,765	14.3
33		66,049	
34	775,575	23,070	3.0
35	2,124,722	315,050	14.8
36	344,418	46,482	13.5
37	892,451	30,874	3.5
38	387,085	33,590	8.8
39	1,022,670	82,471	8.1
40	507,478	54,040	10.7
41	683,603	48,005	7.0
42	1,049,025	126,935	12.1
43	1,092,158	188,353	17.2
44	841,405	68,628	8.2
45	2,619,092	258,306	9.9

N.A.P.P.A.
TABULATION OF 1965-66 QUESTIONNAIRE

GROUNDS

School No.	Total Reported Budget 6 Categories	Total Grounds	% Grounds Total Budget
46	4,316,000	556,000	12.9
47	1,510,600	27,500	1.8
48	449,282	41,855	9.3
49	1,665,517	150,537	9.0
50	1,711,373	184,555	10.8
51		191,840	
52	1,066,558	202,497	19.0
53	1,363,726	126,242	9.3
54	756,408	44,360	5.9
55		149,686	
56	1,848,544	118,817	6.4
57	2,018,883	120,349	5.9
58	2,711,186	89,686	3.2
59	1,874,100	303,800	16.2
60	1,554,723	122,169	7.8
61	597,226	79,202	13.2
62	1,025,104	68,650	6.7
63	1,235,190	129,102	10.4
64	1,548,027	142,218	9.2
65	1,293,837	104,915	8.1
66	1,356,997	202,280	14.9
67	1,220,442	122,819	10.2
68	3,518,292	216,243	6.6
69	2,337,630	248,650	10.6
70	9,599,000	560,000	5.7
71	2,014,200	206,600	10.4
72	1,800,047	285,184	15.8
73	2,174,093	271,088	12.5
74	1,827,797	74,074	4.1
75	1,430,420	168,827	11.8
76		75,404	
77	2,602,725	234,783	9.0
78	2,503,254	302,728	12.1
79	3,261,335	130,000	4.0
80	4,177,724	217,114	5.2
81	4,161,545	660,555	15.9
82	4,177,191	319,689	7.7
83	176,793	13,136	7.3
84	459,258	103,751	22.6
85	1,288,430	79,670	6.1
86		44,862	
87	1,384,014	121,787	8.8
88	345,600	67,500	19.5
89	978,693	46,694	4.8
		Grand Total	789.1
		Average of 81 in % of Budget	9.8


TOTAL BUDGETS IN MILLIONS OF DOLLARS
PER CENT TOTAL BUDGET
AVERAGE LINE
0
1
2
3
4
5
6
7
8
9
10
0
5
10
15
20
25
30
35
70
46
80
82
81
68
79
27
58
77
45
78
49
73
35
57
71
74
56
59
72
48
50
47
60
64
75
65
11
87
33
55
67
63
66
43
52
26
37
69
62
39
42
34
54
44
20
29
24
40
28
21
31
38
53
17
19
16
18
36
32
30
15
14
12
22
23
10
84
86
3
4
6
8

GROUNDS